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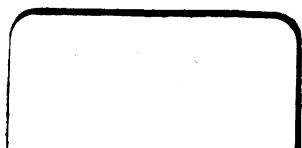
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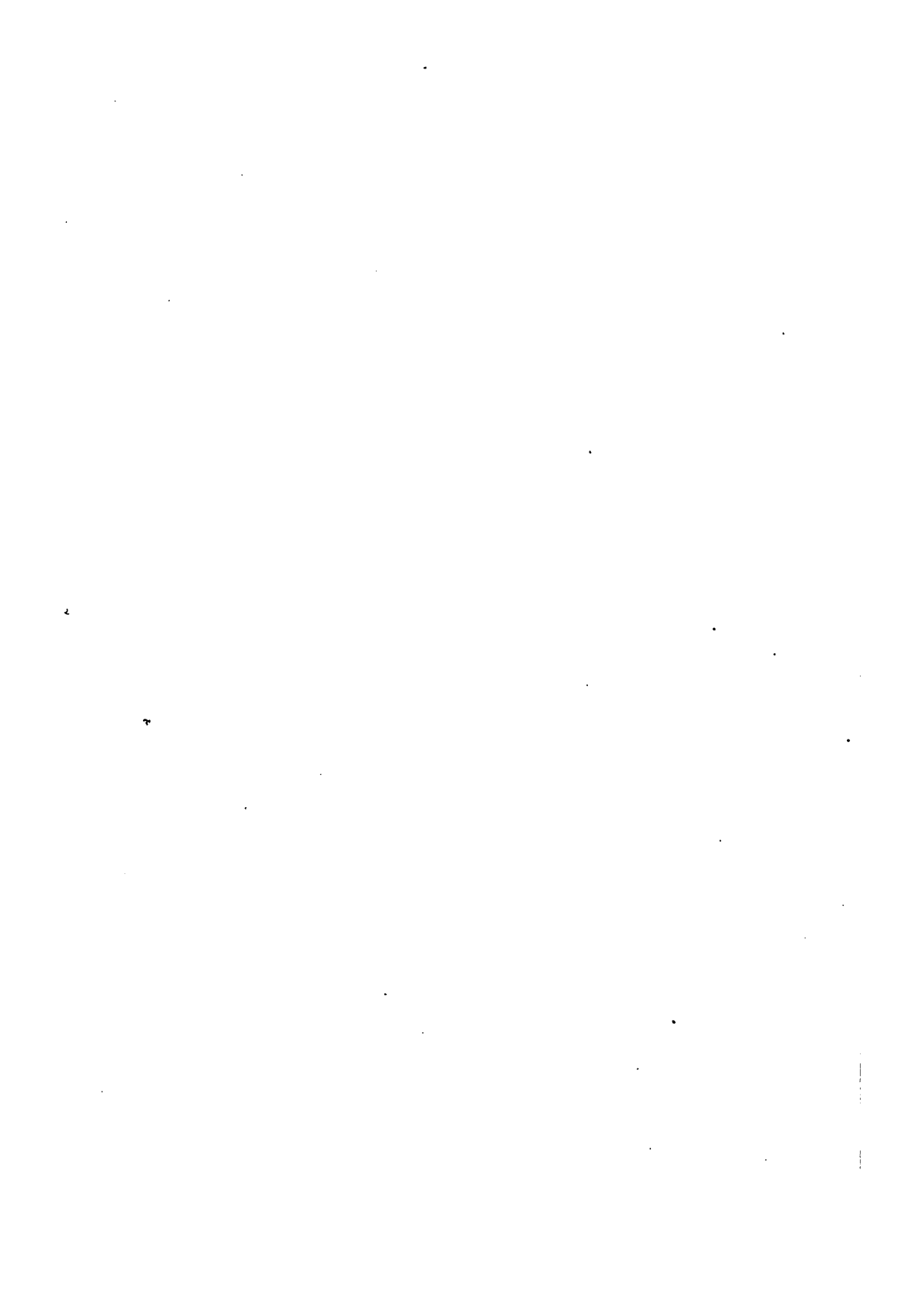
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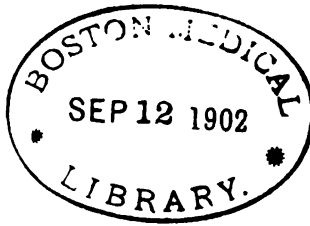
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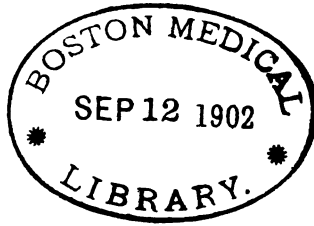
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ORIGINAL COMMUNICATIONS.

THE TREATMENT OF ECZEMA ON MODERN LINES.

BY A. H. OHMANN-DUMESNIL, A.M., M.D., ST. LOUIS,
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The modern trend of pathology is to be bacteriological. We daily find investigators publishing the results of their researches; and in many instances where such was not suspected bacteria have been found to be the cause and origin of the diseased conditions which exist. In no department of medicine has this been more prominently exemplified than in skin diseases, and he who keeps posted on them has noted this fact. The mistake must not be made that these bacteria are mere *saprophytes*. They have been proven to be of a more or less specific character in the way of always producing the same affection, and of always being found in that same condition. This is certainly sufficient proof of its specificity, and the further fact is found that the remedies which cure the disease will also destroy the bacteria, when they are removed from the soil on which they have been originally found. And the converse is equally true. Those agents which will destroy the bacteria *in vitro* will do so upon or in the living tissue; but one thing should never be lost sight of—the agent to be curative should not be irritating or destructive to the tissues.

It is this last fact that has rendered so many antiseptics unpopular. Whilst powerful enough in themselves, they have

proven themselves unbearable to patients, and have consequently been rejected. There can be no doubt whatever that what is required in these cases is a non-irritating, effective agent. It is a prerequisite that, whether the remedy be employed internally or externally, it should have the same chemical reaction as the tissues have. Now we know that animal tissues are of a more or less weak alkaline reaction, and it follows, as a necessary corollary, that any germicide of an acid reaction will be an irritant, the irritation being proportionate to the degree of acidity which the remedy exhibits. The conclusion, of course, is inevitable. A good, efficient non-irritating germicide must be alkaline in its chemical reaction to be well borne, and thus be used to advantage. On the other hand, such a remedy must not be so weakly alkaline that bacteria will remain unaffected by it. The problem which is here presented is one of some difficulty, and yet chemistry, as it exists to-day, is fully able to cope with such a problem, which has been successfully solved in a manner which leaves nothing to be desired by the therapist or his patient. Now, for a few words regarding that exceedingly common and annoying disease, eczema.

Eczema has been chosen because it is the most common of the numerous skin affections, and is one which occurs and is observed the most often. It also forms the type of those inflammatory skin diseases which are accompanied by painful and disagreeable subjective symptoms which at times become most unbearable and subject patients to a life of torture. The burning is always painful, but the itching is the paramount symptom, in which attempts to allay by scratching only lead to the formation of more intense degrees of inflammation. In addition to this, it is a common matter of observation to observe exudation in this disease, and the exudation is corroding in nature and acid in reaction. Its presence is a constant source of pain and irritation, and patients will beg piteously to have that "running" stopped. The mental agony and physical distress can only be thoroughly appreciated by those who have suffered from the trouble. Next in order are those who have treated the disorder. Their observations are of such a nature that they can thoroughly understand what the pain and torture must be to those who are the victims of this implacable disease. If of an inquiring turn of mind, their investigations will teach them that there exists a marked degree

of acidity in the exudates found in eczema. Moreover, as pointed out by Hardy of Paris, Piffard of New York, and many others, the rheumatic, dartrous, or uric acid diathesis is a strong predisposing cause to the inception and continuance of the trouble. In fact, these authors until very lately endeavored to refer all cases to these causes, and strongly advised alkaline treatment, both internally and externally. No one, of course, will deny that the elimination of the gouty, rheumatic, or uric acid diathesis is of the greatest benefit, for the tissues of a low grade brought about by the presence of these conditions will recover their tone in a greater or less degree. But it is equally true that the eczema will persist unless other methods are adopted.

The first question which suggests itself is in regard to the etiology of the disease. Some of the supposed causes have already been mentioned, but clinical experience has demonstrated their fallacy. They contain a slight grain of truth, and are of some importance, but do not solve the problem which is before us. At the last meeting of the International Congress of Dermatology and Syphilology, held in Paris in August, 1900, the first question which had been offered, and was pretty thoroughly discussed, was that: On the Parasitic Nature of Eczema. Unna of Hamburg; Jaddasohn of Berne; Scholtz, Raab, and Kreibitz; James Galloway and J. W. H. Eyre of London; L. Brocq and Veillon of Paris; Juan de Azua and Antonio Mendoza of Madrid; Arthur Whitfield of London, and Morgan Dockrell of London, all pronounced themselves in favor of the parasitic origin of eczema. Their reasons and arguments cannot be reproduced here, as it would require too much space. It is significant to state that there was but one opponent to this view, in the person of Kaposi of Vienna, who asked a perfect definition of eczema before discussing its etiology. So that it may be legitimately concluded that there was practically unanimity in the opinion of those present upon this question, that of the contagiousness of eczema being but of secondary importance.

Before dismissing this portion of the subject, it may not be inappropriate to state that some of the gentlemen who participated in the discussion of the subject of the parasitic nature of eczema, claimed to have made successful inoculations, and produced the typical vesicular eruption of eczema. It is a matter to be deplored that they did not report on the reaction of the con-

tents of these vesicles. Having this information would have constituted some further light upon this moot question, and would contribute in no small degree to the subject of the rational therapeutics of the disease. So far the treatment of eczema has been directed in large part to the alleviation of the intense itching which is found in the disease. Another symptom which it has been an object to remove, is the irritation due to scales and crusts. The former has been accomplished by the use of bichloride of mercury, or of carbolic acid, or of both combined. The latter have been chiefly attacked by means of salicylic acid, or chrysarobin. It is unnecessary to catalogue all the other medicines used. Whilst they are in some degree successful in relieving the symptoms and lesions against which they are directed, they do not effect a cure. Directly they are not used the symptoms will return, and this condition is termed a relapse, and a return is made to a modification of the same method, whose essential nature remains the same. What this nature is may be easily surmised by an attentive reading of the active ingredients. It is essentially acid in nature, and that is the very thing against which due guard and caution should be taken. So that one of the conditions of a successful method of treatment is that it should be alkaline. This alkalinity must not be excessive, or irritation will be the result. An alkalinity very nearly, if not exactly, similar to that of the blood would be physiological, and naturally the most rational to adopt. In the next place a requisite is that the remedy used should be a bactericide. This is indicated and even rendered necessary by the findings of those who have thoroughly investigated the etiology of eczema. It is these conditions which have been at work in the search for and production of an agent which would combine these qualities. Its application naturally would not be confined to eczema, but would be made to cover the immense field requiring a non-irritating, active antiseptic.

The production of such a germicide has been successfully accomplished, and physicians will now be enabled to use it without the fear of corroding tissues by preponderance of acids, and surgeons will also find that there has been offered at last a bland antiseptic which, while powerful in its properties as a germ destroyer, is not in the least degree prone to produce pain or other disagreeable symptoms. This has been accomplished by the pro-

duction of germiletum, whose composition, in chemical nomenclature, is: $\text{HBF}_4 + \text{BOH} (\text{OC}_6\text{H}_4\text{COOH})_2 + \text{BOH} (\text{OC}_6\text{H}_5\text{COOH})_2 + \text{C}_3\text{H}_5\text{BO}_3 + \text{CH}_2\text{O} + \text{C}_{10}\text{H}_{14}\text{O} + \text{KMnO}_4 + \text{C}_{10}\text{H}_{20}\text{O} + \text{C}_{24}\text{H}_{28}\text{N}_2\text{Cl}$. It is, in plainer words, a slightly alkaline chemical solution of borohydrofluoric acid, borosallybenzoic acid, boroglycerine, formaldehyde, with potassium permanganate, menthol, thymol and antiseptic aromatics. It is a liquid, and its properties are those of a slightly alkaline antiseptic, miscible in all proportions with water. In consideration of the fact that this remedy possesses these qualities, it becomes immediately apparent that it is not only indicated in bacterial skin diseases, but can be profitably used as a prophylactic for their prevention, and its use as a toilet article for this purpose is self-evident. Its applications in dermatology are numerous, as in eczema, impetigo, erythema, erysipelas, and a host of other local bacterial diseases which have a tendency to spread rapidly.

The value of germiletum as a non-irritant germicide is further accentuated by the fact that its use has been followed by such excellent results in surgery, gynecology, obstetrics, and dentistry. A great advantage possessed by this antiseptic is that it acts as well where there is a break in the tissues as on an unbroken surface. It is particularly adapted to catarrhal conditions, not only of the skin, but of all the mucous membranes, which are usually caused by micro-organisms. Nasal catarrh, which has long been an odium of medicine, may now be successfully combatted by this alkaline antiseptic. Gastric fermentation (mainly butyric) and many forms of dyspepsia will readily yield to the action of germiletum, which can be taken internally, on account of its non-irritating properties. It also serves a valuable purpose internally in zymotic diseases. It has its best internal application probably in the treatment of diseases caused by bacteria in the alimentary and intestinal canals. It is a known fact that these bacteria may prove a source of real and serious danger when they come in contact with lesions. Having an efficient and non-irritating antiseptic which can be administered internally, and caused to thus kill the bacteria *in situ*, we have a remedy of more than ordinary value, and one which will readily recommend itself to practicing as well as practical physicians. There are many other adaptations which can be readily perceived in the use of this antiseptic, and uses for it will readily suggest themselves. A more ex-

tended employment of germiletum will certainly lead to a greater knowledge of its applications, and broaden its field of usefulness.

The good results obtained from its use in skin diseases of bacterial character, more especially eczema, has led to these few remarks. The fact that germiletum has such a good effect upon inflammatory diseases of the cutis of a bacterial nature is a sufficient proof of what its action should be in analyzing inflammatory conditions of the organs and tissues. In some of these in which it has been employed the expected results have followed, and in others disappointments which were almost expected did not take place. An advantage presented by this preparation, and one which is not positively therapeutic, is its pleasant odor. The antiseptic aromatics which it contains will immediately make it gain favor with the patients, and they will readily consent to its prolonged use, where it would soon be discontinued did it possess a disagreeable or repulsive odor. This is certainly an advantage, more especially when it is recommended for toilet purposes or vaginal injections. Another advantage presented by it is that it is practically colorless, and will not stain the clothing, so that vesical irrigations may be taken without fear of any disagreeable accompaniments. Whilst these are perhaps but minor considerations, they are of sufficient importance to make a favorable impression or the reverse. A nauseous odor, an ugly color, or some similar minor matter, will unmake a preparation. To-day is the period of elegant pharmacy, and all remedies must be so compounded as to be really appetizing to the patient. The physician who prescribes medicines in handsome and palatable form is destined to become popular; and he who prescribes a pleasant-smelling, colorless liquid for the treatment of cutaneous troubles will be much preferred over him who orders ugly-looking, irritating ointments or sticky plasters. And the same may be said *mutatis mutandis* in regard to every specialty, the practice of medicine and of surgery.

THE ASPECT OF DISEASE AS SEEN IN ARCTIC ALASKA.*

BY ERNEST W. KELSEY, A.M., M.D., PHILADELPHIA.

The aspect of disease in Alaska, as viewed by the writer during sixteen months' sojourn in that country, presents characteristics decidedly interesting when seen from the standpoint of a medical observer. The anomalous types presenting themselves demand an ability to recognize their differences as separate from those of civilization. Sometimes the original disease is so obscured by the changed conditions of life, habit, climate, etc., that it is difficult and oftentimes impossible to accurately diagnose the particular ailment present. Before entering the subject matter of this paper it may perhaps not be unwise on my part to give you some idea of the kind of life we lived in that country. My stay in Alaska was not like that of the Argonauts of old, who were hunters of the golden fleece; but simply that of surgeon to the great fur-trading and transportation concern known as the Alaska Commercial Company.

My life in that country covered a period of two summers and one winter—at St. Michael Island and Andraeofsky respectively. St. Michael Island is situated eighty miles north-northwest of the mouth of the Yukon River; Andraeofsky 145 miles up from its mouth. Both of these places are simply trading-stations of this company, containing the officials of the company, the omnipresent Indian village, and a troop of United States soldiers. We had, however, at Andraeofsky about 120 employes of our own, not forgetting a large surrounding mining population, traveling backward and forward for hundreds of miles along the Yukon River, following up one gold excitement after another, often furnishing what are particularly known as stampedes. Upon the news of gold being discovered, or thought to be, hundreds of men, in an insane, wild-eyed rush for wealth, would race madly toward this supposedly new Eldorado, and furnish vivid and fruitful opportunities for medical men to record observations among them.

Alaska, physically speaking, is either an iceberg or a swamp. The country experiences a three-months' summer and a nine-months' winter, and so isolated and ice-locked is it in the winter

*Read before the Philadelphia County Medical Society, Oct. 9, 1901.

that communication with the outside world is wellnigh impossible, and travel is long, tedious, and dangerous.

As one would naturally suppose, life on the frontier, especially Alaskan, is essentially different from that of civilization. There the necessities of life are often limited, and luxuries extremely scarce; many are not procurable at all. Moreover the climate is extremely inclement, even in the summer-time. The torments of the insect-plague help to occupy one's time to a considerable extent, and the hapless resident in this inhospitable section is afforded no relief after his long winter's fight for the unity of soul and body by the advent of this otherwise agreeable season; for with the first tempered breeze come countless legions of mosquitoes, black flies, and various stinging insects, whose agonizing assiduity and ghoulish appetite preclude the enjoyment of the briefest moment. Whence comes the abnormal instinct that marks man at first sight as the prey of these creatures? Considering the fact that their ancestry back to protoplasm had no knowledge of his being, I leave entomologists to determine this question.

In Alaska winter comes with a vengeance, since by September 30th it is frozen over, and one month later the temperature has fallen very low. Observations have shown that temperatures of 80° below zero, and even greater, are by no means unusual, 91° below having been recorded on the Stewart River during the winter of 1891 and 1892.

Let us now review, clinically, the diseases peculiar to this region. The medical man's duties necessarily compel him to be a general practitioner in every sense of the word, and especially if he attempts to deal with disease in so far northern a climate. Primarily he is compelled in every necessity to deal with illness in a very cold region under very bad hygienic conditions, with lack of proper food and of stimulation. There are also the dangers of loss of material due to freezing, or an insufficient supply of food stuffs. A doctor in Alaska must also act in the capacity of medical man, quadrupled with that of nurse, apothecary, delivery man, and very often anesthetizer.

The diseases peculiar to the country are naturally what one would expect would be associated with life under such circumstances. Let me mention cerebro-spinal meningitis, scurvy, typhoid fever, the disorders peculiar to an imperfect digestion,

neuralgia, nervous diseases, and, naturally, the results following exposure to extreme cold.

Cerebro-spinal meningitis, as the result of this extreme exposure to which men are subjected in such an inhospitable country, in which they are very often deprived of the necessities of life, develops characteristics of its own of a very severe type. When a man is once attacked, his unity of vitality being necessarily lowered by the awful hardships he has undergone, his system is naturally very much lowered in tone, and he responds, if at all, very slowly to medical treatment. Delirium is almost always a constant factor, and often carries off the patient. The petechial rash that develops is usually purpuric in type, seemingly showing that certain manifestations of this disease in this country are allied with those of purpura and scurvy. It may be epidemic or sporadic in type, and it is often difficult to differentiate it from the cerebral form of typhoid fever. The mortality is high, owing to the facts above noted, and a medical man, under the exigencies of life there, is terribly hampered in the treatment of such cases. When high fever develops, associated with constant delirium and the presence of obstinate vomiting, it seems impossible in many cases to control the situation.

The drugs furnished in that country are often of inferior quality, presumably due to a desire on the part of the transportation companies to make hay while the sun shines. Nurses are inadequate in number, or of so poor a calibre that those who are trained are a Godsend, commanding wages of fifteen dollars per day and upward.

The percentage of deaths in cerebro-spinal meningitis during the great gold boom of 1898 was very high, for the reasons above given. When one considers the immense rush of traffic in that year from Skaguay and Dyea, entry-ports in southeastern Alaska, into what is now known as the Klondike (by way of the Chilcoot Pass), the limited hospital facilities present, the lack of materials, and the awful concentration of people in so small a town as Skaguay, one must be there to realize such a scene, and I trust I shall never again witness it.

The epidemic that broke out that year was extremely severe; the situation was indescribable—horses, dogs, sleds, men, and provisions, not forgetting the omnipresent pack-mule, were jumbled together in inextricable confusion. When one considers

that among these would-be pioneers of the Yukon, many were people unaccustomed to the rigors of an Arctic climate and better adapted to the counting-room or the warehouses of our larger cities, one can picture what was portrayed when disease attacked such unpreparedness. Two or three small shanties built of lumber, and containing a few blankets thrown upon the floor in lieu of beds, were the so-called hospitals of this mushroom town. A lack of doctors, nurses, drugs, and hospital supplies in general, helped to make a condition of affairs truly deplorable. Such is the picture that cerebro-spinal meningitis can present to a medical man under such circumstances.

The scourge of the white man in Alaska is scurvy, a disease seldom seen in our climate, except among poor or ill-nourished children limited for a long time to one kind of food. The type seen there is in nowise different from that variety of disease so well described by the elder Flint and earlier writers, and so often seen in the army and navy life of the forepart of the last century. I am, perhaps, permitted here to remark that scurvy and cerebro-spinal meningitis are very rarely visited upon the natives of that country; in fact, during my stay there I never saw a well-defined case. I can well remember my first call to see a case of scurvy, and it was so typical I will use it as a means of describing the disease to you. The patient, a woodchopper on the Yukon River, was attacked early in December, 1898, and suffered some weeks from that gradual breakdown of vital strength concomitant with the major symptoms usually seen, however little understood by him. As all travel in that country is by dog team, considerable delay was entailed before I was notified. No time was lost after receiving the message in attempting to relieve him, and after two days' journey over the ice we arrived at the camp, and found three men ill with scurvy—one profoundly affected. His breath was horribly offensive, teeth dropping out, and others so loose that I could draw them easily with thumb and forefinger. Ecchymotic spots were present on the abdomen, and large patches of congestion, nearly black, on the legs; there was some fever and a lack-lustre eye. All the symptoms were associated with considerable pain; locomotion was impossible, due to infiltrations into the joints, which were very much inflamed; there was no appetite; bloody diarrhea was another unpleasant symptom. The pain was so intense that if one pointed a finger at him he

screamed with apprehension. We had brought with us what was priceless in that region—fresh potatoes and fresh onions, a full line of canned meats, together with some game we had shot, deer-meat, and the native grouse of the country. I had, besides these, medicines and lime-juice. It was decided, however, to take the man to our station at Andraeofsky, where a little room was set apart as a hospital. After a very dangerous journey, being overtaken by an Alaskan blizzard, losing our way, etc., we reached camp more dead than alive, having been without food for more than thirty hours of our run. Here my patient was placed under treatment—iron, arsenic, mineral acids, lime-juice, raw potatoes, vegetables, and the best the camp afforded. The old traders in the country recommend a spruce or birch tea, made by steeping in hot water the small boughs and twigs and leaves of these trees. His recovery was wonderfully rapid, supporting Flint's theory of scurvy, that of lack of potassium salts in the blood. This seems undoubtedly correct when one proceeds along the line of treatment suggested by that theory.

In all, about thirty cases of scurvy came under my care that winter, and although some of them seem almost "in extremis," they recover as soon as proper treatment is given. On the other hand the condition is even more unendurable when one considers that the only hope of the condemned, if I may use the term, is a rescue by fellow-men, or alleviation by an early arrival of spring, giving the prisoner a chance to escape with the advent of warm weather and open water to civilization.

Typhoid fever, another disease almost as severe as those above mentioned, is, like our old familiar enemy, often seen wherever bad drainage, lack of hygiene, or poor sanitation exists. This disease develops peculiar characteristics, as the writer from personal observation and experience can testify, he being one of its fell victims. Some of the facts noted are a tendency toward absence of rash, a not very high fever, and the association of scurvy and salivation often helping to confuse the medical man. There seems to develop, in the summer time, in the upper Yukon district, near the Canadian border, a type known as typho-malarial fever. Characteristically it was marked by the presence of traces of scorbutus, and a tendency to intermittency throughout the whole of the febrile stage. The cerebral form is especially rampant here, and, as has been remarked earlier, it is often diffi-

cult to tell it from cerebro-spinal meningitis. One can easily see how scurvy and salivation are ugly complications to deal with in the treatment. Salivation arises as a result of carelessness on the part of miners in amalgamating their gold, as, for instance, sleeping in the same tent while this process of extracting the precious metal from its surroundings is going on.

When the cerebral form of typhoid fever in that country develops with the above complications, together with that of intemperance proverbial among miners, the result is generally fatal. Peculiarly, its combination with pneumonia is very rare, its course atypical, and the temperature chart rarely shows high figures even in delirium. Hemorrhage, often followed by perforation, is common because of the almost invariable presence of a weakened bowel lining, probably due to pre-existing catarrhal processes. Treatment is directed to preserving what remaining vital strength is present; but hampered as the medical man is by the poor and inadequate drug and food supply, it is very difficult to bring about the results equivalent to those in civilization. Condensed milk, and possibly among a few of the better-class miners beef tea, are about the only articles of diet obtainable. In my time eggs, fruit, predigested foods, etc., were luxuries unheard of; alcohol could, however, most always be obtained, even when everything else in the camp had been absorbed. One word more: quinine was particularly valuable in the conditions marked by the intermittency spoken of. In the Cape Nome district, 2,000 miles from the Klondike proper, this so-called type of typhoid fever was especially prevalent during the summer of 1899 and the winter of 1900. But time is pressing, and I must pass on.

Rheumatism.—A disease showing a somewhat changed type from that witnessed in Philadelphia. Several medical men with whom I have conversed have agreed with me that it is either neuralgic in type, or at least presenting some of the symptoms of true neuralgias. The inflammatory type is never seen except in summer time, when swampy conditions prevail and the patient exposes himself to involuntary baths in ice-cold water, as in fording rivers. The neuralgic form may probably be influenced by the intense cold prevalent during the winter season; it is very rarely marked by much increase of temperature, often by none at all; but frequently associated with a neuritis. The heart is rarely

if ever attacked, no matter how severe the trouble. This affection responds to the usual form of treatment very readily, but frequently recurs. Phosphoric acid is undoubtedly a great help in chronic cases. Insufficient oxydation of the blood, the presence of intestinal indigestion, and not enough fluids being drunk by the miners, are given as some of the causes of this condition. During an attack urates and phosphates show themselves in very large amounts in any urinalysis performed. The necessity of making the kidneys do extra work, by reason of the diet, affords a probable explanation for the large uratic and phosphatic excretion.

Pneumonia—Only one case came under my observation while in that country; practically none is present during the cold weather, exploding many of our pet theories of its supposed presence when men are exposed to a cold climate. This is equivalent to the statement of the late Dr. Pepper, and also Dr. Kane, the Arctic explorer, that pneumonia is more prevalent on the shores of the Mediterranean than the other side of the Arctic Circle. As to whether it is trophic in origin or the result of congestion due to exposure, I leave to specialists in pulmonary troubles to decide. The course of the disease is more or less afebrile in type, occurring mostly when present among intemperate, and only in the spring or summer, when the ice is gone and damper and warmer weather prevails upon the sea coast, rather than in the interior. Exposure to damp and wet weather during the early days of the Cape Nome excitement, when men slept out of doors, through force of circumstances, literally soaked to the skin, and even under these circumstances typho-malarial fever, rather than pneumonia, developed when a favorable soil presented itself.

The *nervous diseases* of Alaska resolve themselves into two classes: First, structural in type, due to physical conditions external to the patient, as mode of life, habit, environment; and second, those psychic in character, the type of the latter being a species of insanity to be described later, due to the life in those climates. Let us consider the first of these. Necessarily neuralgias take a prominent part in the work of any physician practicing in that country, and are often very difficult to treat.

When men are exposed to temperatures as extreme as those in Alaska, and under the environment there, naturally one would expect inflammatory nerve changes to develop such diseases as neu-

ritis, spastic paraplegias of various sorts, and dermal changes due to perverted nerve supply. Locomotor ataxia and disorders of sensation, with changes very often in special sense organs, are frequently seen. A good many of these are probably trophic in character. Extreme cold frequently induces neuritis difficult to relieve, even by persistent treatment in warmer climes. Spastic paraplegia seems often to be the result of men working up to their waists in ice-cold water during the change of season, not having an opportunity to change their clothes, together with bad hygiene. Dermal changes are natural in many cases, due to freezing of various portions, nerve degenerations usually following this exposure. Locomotor ataxia seems to be a result of extreme hardship, often followed by the intemperance characteristic of the miner. Many of them declare that they felt as though they were walking on cushions of air, evidently peripheral nerve degeneration.

The disorders of sense organs are few, limited mainly to snow-blindness and the results of the various dermal changes spoken of. Snow-blindness seems to be due to either an irritable retina or irritation of the optic neurons themselves. Primarily the inflammation following (as conjunctivitis or iritis) is the result rather than a cause of snow-blindness. The treatment directed on this theory achieves better results than when treated separately as local inflammation. Treatment in all of the above conditions is obviously more or less unsatisfactory.

With the above, two other nervous affections, together with insanity, remain to be mentioned in the same category. As to why men will become morphia degenerates or habitués to alcohol, seems not so unexplainable when one remembers the awful isolation, the horrible sense of loneliness, the lack of occupation or means of exercise existing there. Unless one possesses a strong will-power, many seek relief from this state of affairs by morphia, alcohol, or one of its substitutes, no matter what it costs. Many men feel that they must have them, be the result what it may. Paradoxical as it may seem, these drugs do not produce in the same proportion the disastrous results so often seen in civilization. Anything containing alcohol, as, for instance, lemon extract, Jamaica ginger, Perry Davis' pain-killer, and wood spirit, the writer has seen ingested in large quantities without producing serious results. Worcester and tabasco sauce and red ink are

some of the things used when all else fails. Perhaps the intense cold affecting nature causes her to use up these abominably dangerous substitutes without seeming serious visible effect upon the human economy.

Insanity is often seen in Alaska, three distinct cases having occurred in our camp during my stay there. This condition seems to develop only in the winter time, and is generally the result of exceeding nostalgia or homesickness, the non-receipt of letters, the lack of occupation and of exercise, the frequent forced detention indoors, due to weather conditions, and the terrible isolation of Alaskan life. It exhibits itself generally as acute melancholia, almost invariably followed by acute mania. Delusions of persecutions are frequent, being the first sign of mental aberration. Paranoiac tendencies often develop, the usual physical signs of mental unrest, dilated pupils, tremor, gastric and intestinal disturbances, exaggerated reflexes being generally noted. Suicidal tendencies sometimes prevail, and a fear of a maniacal outbreak is always to be dreaded. Treatment is difficult, because of the constant necessity of guarding the patient, and the fear of his wandering away over the ice and snow and becoming hopelessly lost in the maze of an Alaskan wilderness, death very soon ending his sufferings. The writer recalls several deaths having occurred in the above manner.

An attempt is generally made when such a disease develops to transport the patient, constantly guarded, over the ice and snow to the borders of civilization, where under appropriate treatment and care recovery sometimes follows.

A class of disorders not previously mentioned deserves a moment's consideration. I refer to gastro-intestinal complaints. The unfortunate resident of this country suffers terribly in many cases from gastritis, constipation, intestinal indigestion, and diarrhea or kindred complaints. One would naturally expect such troubles to be generally prevalent, for the food consumed in Alaska is insufficient and poor in quality. Beans and bacon, canned goods (and occasionally as luxuries dried fruits) are the staple articles of diet. A too prolonged diet on a single article, such as beans and bacon, produces scurvy. There is little nutriment in canned goods, and the constant use of a parboiled or preserved food is such a tax to the digestive apparatus of even an Alaskan miner, that it frequently revolts, and disease results.

The treatment is here again difficult, bismuth and salol, however, in large doses, being valuable aids. A number of curious types of these conditions could be described would time allow.

A word as to the diseases peculiar to the natives. As has been heretofore remarked, cerebro-spinal meningitis and scurvy are never found. Perhaps their almost exclusive fish diet, their manner of living much in the open air, insuring them to hardships, and yet compelling and necessitating constant exercise and hard work, are probably preventive factors. Their diseases are mainly chronic bronchitis, consumption, pneumonia (in the rainy season), smallpox, scrofulous diathesis, syphilis, measles, la grippe, and even mumps. All these take on extremely severe forms when attacking an Alaskan Indian.

The first mentioned diseases decimate them frightfully, and will ere long exterminate them. An odd fact is that what little pneumonia is in the country does attack the Alaskan Indian much quicker than the white man. One can easily see how many of the above affections are acquired. A particular habit they have of sitting around in the mossy ooze of spring time, covered with furs and clothes that have by use and wear been converted into a clammy pulp (never dry) is especially responsible for most of their rheumatic, neuralgic, and pulmonary complaints.

Let me in conclusion say that surgery in Alaska differs in no-wise from surgery practiced elsewhere, only attended with exceptional difficulties, the operator being often compelled to act in a general capacity, together with that of anesthetizer, and situations quite unique are frequently developed. At some future date I may be permitted to give you some idea of how operative work is conducted in Alaska under the then limited facilities offered.

Jonathan Hutchinson Goes to Africa.—Mr. Jonathan Hutchinson, F.R.S., is leaving shortly for South Africa, with the object of prosecuting his researches into the etiology of leprosy, especially in respect of the transmission of the disease by the consumption of dried and badly-salted fish. He will go in the first instance to Robben Island, and later to Natal and Basutoland districts, which, he believes, offer exceptional opportunities for investigations in this direction.—*Medical Press and Circular*, Dec. 4, 1901.

**THE TREATMENT OF SYPHILIS, WITH SPECIAL
REFERENCE TO THE BEST METHODS
OF ADMINISTERING MERCURY.***

BY WINFIELD AYRES, M.D.,

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The author calls to mind the facts that mercury has been used in the treatment of syphilis for over four hundred years, and there are few physicians to-day that do not use it in some form. Although the method of treatment with mercury is still discussed, he is firmly of the opinion that there is no hope of eradicating the disease unless the full dose is given constantly for something like three years. The treatment should begin just as soon as the diagnosis can be made. There is no ground for supposing that enucleation of the chancre has the effect of aborting the disease. If a positive diagnosis cannot be made from the appearance of the initial lesion general tonic treatment should be instituted.

In some cases the protiodide controls the symptoms, but in the majority of cases it is of very little use. Experiments with mercuriol were conducted at Bellevue Hospital for eight and a half months with 180 cases; the histories of 95 of these are recorded. The remainder could not be kept under observation, and are therefore passed over. The dosage of the mercuriol, regulated either by reaching the point of tolerance or control of the disease, varied from one-half to six grains. In 64 of the 95 cases the disease was controlled as follows: in two weeks, 8; three weeks, 12; four weeks, 14; five weeks, 6; six weeks, 5; seven weeks, 2; two months, 8; ten weeks, 2; three months, 5; and four months, 1. The remainder are marked thus: decidedly improved, 17; improved, 8; no improvement in two weeks, 3; no improvement in four weeks, 1; and no improvement in three months, 2. The latter were all dispensary patients, and it is uncertain whether they took their medicine regularly.

The writer states that his plan was to increase the dose steadily from one grain until the symptoms were controlled, or until there was a slight tendency on the part of the teeth and gums to become tender. If the symptoms were not controlled before the

*Abstract from an original paper by the author in *The Lancet* (London, Eng.), Oct. 19, 1901.

physiological effect of the mercuriol made itself felt, small doses of potassium iodide were added; and in every case where the mercuriol was taken according to directions, with the exceptions noted above, the symptoms were controlled.

In 67 out of the 95 cases tabulated, no other medicine than mercuriol was given. In 15 out of the remaining 28, the addition of iodide of potassium was found to be sufficient to control the disease; while in 6 others the addition of an iron tonic sufficed for this purpose.

The cases are not reported at length, but a few of the more remarkable results and some cases in which other medicines failed to control the disease are briefly mentioned

Case 1 had been taking bichloride for one month, with very little improvement. Under mercuriol, three grains maximum dosage, the symptoms were under control in five weeks.

Case 2 had been under biniodide of mercury (one-sixteenth of a grain), and potassium iodide (five grains), which caused iodism. His symptoms were controlled in one month under half a grain of mercuriol.

In Case 3 unguentum hydrargyri had failed to control the disease. The patient was put on mercuriol, and the dosage pushed up to six grains three times a day. The disease was thoroughly under control in seven weeks.

Case 4 had been on three-eighths of a grain of biniodide of mercury and twenty grains of potassium iodide for two months. The medicine caused nausea and vomiting. Having been put on mercuriol, and the dosage gradually increased to five grains three times a day, the symptoms were controlled in three weeks.

Case 5 had been taking hydrargyrum bichloride (one-twelfth of a grain) three times a day, under which an eruption on his face had faded, but the eruption on his body still persisted. His symptoms disappeared in two weeks, under a maximum dose of three grains of mercuriol three times a day.

Case 6 had been on bichloride of mercury (three-sixteenths of a grain) for three months, in spite of which he had palmar syphilide of an eczematous variety. All appearances of the disease disappeared after he had been one month on mercuriol, his maximum dose being three grains three times a day.

Case 7 had been taking one-quarter of a grain of mercuriol and fifteen grains of potassium iodide, with the result that the erup-

tion had decidedly improved, though not to the extent that it should have done. There were thickened red patches on the face, covered with scaly eruptions. The symptoms almost entirely disappeared in three weeks under a maximum dosage of five grains of mercuriol three times a day and fifteen grains of potassium iodide.

Case 8 had been treated with inunctions of mercury, under which the eruptions disappeared, but the pains in the bones still persisted. He was relieved in three weeks under a maximum dosage of four grains of mercuriol three times a day.

Case 9 had been taking other forms of mercury for six months. The form which had done him most good was bichloride. Yet one-fifth of a grain did not entirely control the disease. He had been taking that for two months when he was placed on mercuriol. The dosage in his case was pushed up to six grains three times a day, and at the end of seven weeks all his symptoms had disappeared.

Case 10 had been taking medicine off and on for two years, but his symptoms never disappeared entirely. After being two weeks on mercuriol (two grains three times a day), with the addition of potassium iodide, all symptoms had disappeared.

Ayres, in conclusion, states that he uses mercuriol in his private practice to the exclusion of all other drugs. His experience is that he gets better results. He has found no form in which mercury can be given with such good results as in that of mercuriol.

Habits of Mosquitoes.—Observations made by the members of the malaria expedition of the Liverpool School of Tropical Medicine to Nigeria revealed the following facts with regard to the habits of mosquitoes, which largely confirmed the results of previous researches:

Anopheles were found in shallow surface puddles, in collections of water, in native dug-out canoes, in claypits and wells, in ditches at the side of roads, in marshy ground in the neighborhood of springs, and in the hollows left by the subsidence of rivers in the dry season. The investigations in Nigeria also confirmed the view that Anopheles will not breed at any distance from human habitation.—*Medical Record*.

PERTINENT OBSERVATIONS CONCERNING APPENDICITIS IN THE FEMALE.*

BY ANDREW J. DOWNES, M.D., PHILADELPHIA.

My first appendectomy on the female was performed October 4, 1890. In the preceding March I had performed on this same patient a median celiotomy and removed both tubes and ovaries for a condition secondary to a puerperal infection. In spite of an apparently aseptic operation unusual symptoms immediately supervened, chiefly pain in the region of the cecum, tympany, and constipation, which symptoms persisted in varying degrees for six months. At the second operation, October 4, 1880, through the old incision I delivered a thick, long, inflamed, adherent appendix. Marked adhesions caused angulations at the ileocolic junction, thus explaining the constipation and tympany. In this case appendicitis did not occur *de novo* after the first operation, but the condition already present was aggravated by the handling of the contents of the pelvis. In 1890 little use was made of the Trendelenburg position. Pelvic surgeons were not well acquainted with appendicitis, and did not often examine for such a condition. To-day no pelvic operation similar to the one then performed is complete until the appendix is seen and carefully examined.

My first operation for appendicitis after the diagnosis was performed November 13, 1890, on a lady sixty-six years of age, who early in the previous month had a sharp attack of peritonitis, from which she recovered only to have a sharp recurrence of her symptoms November 10th following. It was in the early days of appendicitis, yet a careful bimanual examination, the absence of urinary and hepatic symptoms, excluded everything but appendicitis. She was operated upon during the acute period, recovered, and is still living. Even in this case only the certain exclusion of any pelvic condition or ovarian cyst warranted the oblique short incision over the appendix.

About six years ago the following case occurred: The patient had a stillborn child ten years before. Following labor she was very sick, and during ten years had frequent attacks of peritonitis, and never again, although desiring it earnestly, became pregnant. Among her earlier attendants one advised the removal of her disease, which he located in the pelvis. His advice was not

*Read before the Philadelphia County Medical Society, Oct. 23, 1901.

accepted, and her attacks continued until finally a very severe one occurred, characterized by more than usual pain and tympany, four days of constipation, and a black vomit. During this last attack the pain seemed to extend a little higher on the right side and involve the region of the cecum. Her medical adviser urged most strongly in favor of operation, and informed the patient that a proper incision would be in the right semilunar line, to include the appendix in the operation field. Previous to this last attack there had never been any symptom that would lead one to suspect any lesion of the vermiform appendix. The term appendicitis was then, as now, very potent, and prejudiced her to obtain other advice. The new consultant, without hesitation, after a very meagre examination, positively located the appendix as entirely at fault, advised its removal, and operated. A very short oblique incision immediately over it exposed a non-perforated, non-adherent, slightly congested appendix, with a normal meso-appendix. The abdomen was closed within fifteen minutes, and the patient died within seventy-two hours with symptoms of obstruction and a black vomit. No post-mortem was made. The following explanation is offered in this case: There had been old purulent pelvic disease of the right side, with bowel surfaces adherent. In the severe attack three weeks before operation, in which pain in the appendix and a black vomit occurred, the inflammatory outburst had caused distention of the bowels and increased angulation at the points of adhesion. The intestinal gases and fecal contents passed but a short distance beyond the cecum, and the appendix filled with gas, giving rise to colic. With the subsidence of this acute attack the condition, to one accustomed to carefully palpate the pelvis by bimanual examination, remained a distinct pelvic one. The operation, by slight traction on the bowel and its exposure, lit up even more acutely the inflamed area in the right pelvis and let loose perhaps some septic material. The lesson is obvious: a careful pelvic examination and a proper incision to expose also the contents of the pelvis would undoubtedly have effected a different result. I have been made acquainted with the following case: A surgeon of large experience in appendicitis diagnosed a case with right-sided symptoms as appendicitis, and operated. Very soon after, in another larger hospital, a surgeon doing gynecological work exclusively, discovered a right pus tube antedating the operation

recently performed. The pus tube was removed and the patient cured of her long-standing symptoms.

The following occurred at Buffalo: A case was diagnosed as acute appendicitis, and operation performed. The surgeon was surprised at the symptoms that persisted, and even became aggravated after, as he claimed, an aseptic operation. Dissatisfaction existing, another surgeon, who happened to be a gynecologist, was forced to take the case even before the patient had yet risen from bed. He very soon made a different diagnosis and removed a large pus tube from the right side, thus relieving a high temperature and all symptoms. The only remark about these two cases, and many others like them that could be mentioned, is that they should have no statistical value in appendicular surgery.

The following is authentic: A case is diagnosed and operated on for appendicitis, without relief. In a very short time a second operation is performed by another surgeon, who removes 400 gallstones and restored the woman to health. The following case is also a fact: The appendix was removed, with persistence of symptoms. A second operation a month after was performed for cancer of the rectum as a cause of the original symptoms. The following is another instructive case: A young woman of thirty years is taken with pain in the right side, and sent to a hospital, where an examination, consisting essentially of palpation of the right rectus muscle, enabled a surgeon of a very large appendicitis experience, without a bimanual examination, to diagnose appendicitis and operate. The patient resumed her usual duties in seventeen days, only to return to the hospital with the same symptoms in three weeks. Her incision was reopened and enlarged. Her stay in bed was this time eight weeks, and she required crutches on rising. The right-sided pain still persisted, however, and the surgeon curetted the uterus. She finally left the hospital, but in a short time was taken to another hospital, and a minor operation was performed without relief. Within a year, in New York City, a prominent surgeon amputated her cervix, but located disease in the right pelvis, and desired to open her abdomen. I had formerly made a similar diagnosis, and had advised operation. Ultimately she came under my care. She was quite wretched and had been considered hysterical. She suffered from pain on pressure over her incision. There was almost

complete anesthesia of the right lower extremity and as high as the navel on the right side. The muscles of the anesthetic area had slightly diminished and contracted. Her right heel had required an inch elevation. In the recumbent position pressure over the old incision caused contraction of the flexor muscles of the thigh and leg. I operated through the old incision, enlarging it to the symphysis. The peritoneal surfaces had not approximated, and running across the bottom of the incision, in contact with its muscular layer and the adherent bowel surface, was the ileo-inguinal nerve, one end free. The freeing of the densely adherent cecum and bowel surfaces and the loosening of the adherent nerve required considerable careful work. I need go no further in the case than to say that with the removal of the disease from the pelvis this patient was cured of her original symptoms and restored to great usefulness. A pertinent comment on this case is that a careful preliminary bimanual examination, which the patient assured me had not been made, would have located the disease in the pelvis and at least have instigated an incision through which both the contents of the pelvis and the appendix could have been reached. Thus possibly one operation would have done what it required six to accomplish. I have been told of the following case: A young woman of twenty years had symptoms which her physician diagnosed as appendicitis. The physician, who himself had been operated upon for the same trouble, sent for the expert, who also diagnosed the girl's case as appendicitis, and strongly advised immediate operation. The advice was not taken, and subsequently another surgeon, after a careful examination, made a different diagnosis, operated, and removed a large tumor. No disease of the appendix was found.

I have recently had the following case: A woman was referred to me with all the evidence of a chronic appendicitis, with a history of at least three very severe septic attacks, during which she was in bed three weeks for each. Her first attack dated back five years. She had a median celiotomy scar from an operation two years before coming under my care. She was informed by the surgeon that one tube and ovary had been removed. She had menstruated regularly since this operation. Her post-operative condition was quite severe, and she was in bed seven weeks. Subsequent to this operation she had two very severe attacks, which from description I considered as due to appendicitis, and

she assured me that her attacks prior to her operation were similar in character. I operated on the semilunar line and dug out an old chronic, ruptured appendix incased in an organized sac. It is my conviction that this woman's trouble had been only appendicitis, and that an examination of the appendix at the first operation would have obviated a second one. I believe that the severe condition following the first operation was due to the handling of the bowel surfaces adjacent to the walled off appendicular condition.

Among my very recent cases was a young woman with a distinct retroversion, who had mental symptoms which were always much aggravated at her menstrual period, at which time there was severe pain in the ovarian regions and intense headaches. I decided to operate, with the expectation of at least helping her. At the operation multiple cystic condition of the ovaries was found and treated by ignipuncture. When I was about to introduce sutures for suspending the uterus the appendix was pushed out of the incision. It was an angry red throughout its distal half. It was removed by the electrothermic method. The uterus was suspended and the abdominal incision closed. The pathological report on the appendix showed two hyperemic patches, one hemorrhagic infarct, and tortuous congested vessels. There had been no symptoms in the case pointing to appendicitis. My reason for introducing this case is to offer it as an argument against vaginal fixation or Alexander's operation for retrodisplacements. The intra-abdominal operations enable us to discover the condition of the appendix. To-day an absolutely aseptic technique in a properly equipped operating room eliminates practically all the dangers from bowel exposure.

A year ago I diagnosed a case as acute appendicitis. All the classical symptoms existed—fever, pain, tenderness on pressure, rigid rectus muscle and other symptoms were present, as was the history of a number of previous attacks. The case was urgent, yet I took the trouble to make a vaginal examination and discovered a large fluid tumor. The following morning I operated through a long incision in the right rectus muscle and delivered a large polycystic ovarian tumor, removed it, and then also a thick appendix undergoing acute septic changes. I have operated many times for pus cases, and removed at the same time the appendix in varying degrees of inflammation. In the cases where the

pelvic trouble predominated, or where the symptoms did not point to coincident appendicitis, the median incision was used. Wherever there was reason to suspect appendicial trouble as an important factor the incision through the right rectus muscle was chosen. I have purposely excluded from this paper acute fulminating cases and those with extra-appendicular abscesses. These cases, with all due respect to those doing the greatest amount of appendicial surgery, are greatly in the minority. Mistakes in diagnosis are but rarely made in these cases. This is the only type of case in women that should have the incision over the usual seat of the appendix. A much larger and greater variety of cases of appendicitis in the female than the foregoing could be cited, but these suffice to support the following view:

No surgeon, however great his knowledge or experience, is justified in diagnosing a case as appendicitis in the female without a deliberate and careful examination, including a bimanual vagino-abdominal one. That this examination should be similar to that usually given by the expert gynecologist. That the general surgeon who does not take time to become so expert is liable to many mistakes in diagnosis. That rigidity of the right rectus muscle is of no importance alone as a diagnostic feature. That the incision for appendicitis in the female should with few exceptions be either in or close to the right semilunar line, to control the pelvis and appendix. That in a case with grave symptoms, where the appendix on exposure is found but slightly diseased, the pelvis should as a rule be explored and its contents seen. An exemplification of this is found in the third case above reported. That the gynecologist, as is becoming generally the rule, should, in all cases where the abdomen is opened for pelvic disease, expose as a final step the appendix, and remove it if it shows the slightest evidence of disease. That the gynecologist's field is not the pelvis, but the pelvis and the abdominal cavity of the female, and that the surgeon who says there is no such thing as gynecology should at least not be so busy as not to have time to palpate the pelvis as a necessary preliminary step to abdominal surgery. That where, for any good reason, such an examination cannot be made before the patient is under anesthesia and on the operating-table, that it should at least precede the opening of the abdomen, and that the use of rubber gloves makes this at that time an easy and safe procedure.

In conclusion, no attempt has been made in this paper to enter exhaustively into the subject of appendicitis. I desired to call attention to the necessity of bimanual examination in women as a necessary preliminary step in the conduct of a case with symptoms of appendicitis. I also desired to strongly urge the incision through the right rectus muscle, more often indicated than at present used by surgeons.

Professor Virchow's Patient.—Berlin correspondence of the *London Standard*: A humorous anecdote is told of the eminent octogenarian pathologist, Rudolf Virchow. It was only for a very short time that he practiced medicine. He was devoted to scientific research, and private practice interfered with his studies. But one day in later life, while his students were waiting for their lecture at the hospital, a gentleman knocked at the door of his private room and stated that he was not feeling well and wished to consult the professor. The learned savant examined the man carefully, and then said: "Why, my good friend, you have no business to be alive at all! You are suffering from three separate complaints, each one of which has long since arrived at a stage which ought to have caused your death. This is a most interesting case; it shows that one must not always believe in theory."

The patient began to feel very uncomfortable, but Professor Virchow did not notice either the effect of his words or the comical side of the situation. He added: "Would you mind stepping into the next room? I should like to show you to some gentlemen who are there." The patient followed the professor into the lecture room, where he was introduced as an interesting case, and he had to remain while the professor described the nature of the three diseases and the progress they had made. On again hearing that he ought long since to have been a dead man he got so uncomfortable that he felt a longing for home, and bolted. The man is still alive! No doubt Professor Virchow is now more astounded than ever, and the patient of those days was able to laugh in his sleeve over the incorrect prognosis while he warmly congratulated the doctor last Sunday!

CORRESPONDENCE.

A LEPROSY CURE (?).

Editor ST. LOUIS MEDICAL AND SURGICAL JOURNAL:

SIR—Reports come that Dr. Louis Knapp, in charge of Dong Gong, the Chinese leper at St. Louis Quarantine, is becoming sanguine of curing the disease because a spot on the neck of that maculo-anesthetic leper shows signs of improvement under treatment. He has been anointing it twice a day with a New York remedy, a tarry liquid composed of seven gums, one of them from Venezuela, the land of leper cures galore, two from Africa, and the remainder found in the United States. These seven gums are boiled, and thus liquefied. The odor of the mass is ichthyolic. This is a sailor's remedy and is very much like Thudicum's or Friars' Balsam—no better, no worse. The remedy was first used extensively in Massachusetts, being brought there by whalers, many decades ago, to the port of New Bedford. A Methodist Episcopal clergyman of distinction willed its composition to his distinguished son, a friend of the writer. The balsam is also well known to the old women of Orange County, New York, and also all up and down the Hudson river. It is an admirable cure for mangey dogs and greasy horses.

In Venezuela, it is related of it, once upon a time a superintendent of an asphalt mine treated one of his leprous workmen with this remedy and "he was cured." As a leper remedy this is its only experience. Whether it will have more to its credit than many others that have preceded it remains to be seen. Venezuela is a land of false leper cures. Here are a few of them: Beauperthay's Cashew-nut Oil cure; Cundurango, cancer and leper cure, endorsed by the distinguished Brazilian chemist, Mr. Silva Araujo; the Milk of Aveloz, cancer and leper cure, patented and sold by the Brazilian government itself (a supply of this remedy was sent to me by our U. S. Minister, Robert Adams, my class-mate); the Tua-Tua plant cure, experimented with by the U. S. Marine Hospital Service at Hawaii; Fluid Extract of Brusca, a leper remedy, patented in Washington under the name of Arbuscino by a former attaché of the Venezuelan legation; the Argola plant cure; the Mangle Rojo (red mangrove), which was tried at Key West and at the Louisiana Leper Home, and which Dr. Robelin of Havanna claims to have some virtue. Besides

we do not forget Latin-American experiences, and false claims regarding Carrasquilla's leper serum, Calda's antiamarrelie serum, and Sanarelli's "bacillus" of yellow fever.

The question of curing leprosy depends upon the question of culture of Hansen's bacillus. It is not worth while to waste our time trying every empirical remedy that is sent to us by every *yarn spinner* who comes from a ship. I have been deluged with "cures of leprosy." As yet we do not possess a cure against the disease. Many things will help the leper, but no one now knows a cure. We can only prevent the spreading of the disease and improve the general condition of the wretches. The personal equation of a medical man should not warp his judgment. A man's fame, vain glory, desire to see his name heralded in the public press, are sometimes made wrong use of by those who are commercially interested in the question of curing a leper.

New York.

ALBERT S. ASHMEAD, M.D.

PROPAGATION OF LEPROSY.

A letter to the *New York Times* is thus worded:

The article published in the *New York Times* issue of Monday, the 23d, on the question of the eradication of leprosy from Hawaii by the gradual extinction of the native race does not give the whole scientific reason why isolation of lepers at Molokai has failed to prevent the spread of the disease. All authorities are agreed that enforced isolation in Hawaii is a complete failure. Moyer says that it did not diminish by segregation; there are just as many now as at the start, fifty years ago. Alvarez, superintendent of the hospitals for the treatment of lepers in Honolulu, wrote me thus:

"The laws of Hawaii fail to stamp out the disease (leprosy), but still they are necessary to keep it in check." He continues:

"We have had strict laws of compulsory segregation for the last thirty years, and the results are anything but encouraging. I believe, however, that leprosy as well as any other contagious disease could be stamped out by strict isolation, but we find it impossible to isolate every leper as soon as the first symptom appears, and we do not know if the disease is also communicated to others during the long period of incubation, when the most searching investigation would fail to reveal it."

Dr. A. Mouritz, formerly in charge at Molokai, wrote me:

“One of the best fields for observing the grasp that leprosy has on mankind and the penalty the human race is paying for its apathy in dealing with the disease can be seen on this island (Molokai), and within twenty-five miles of my home (Mapulehu). Year in and year out the lepers at the settlements average between 1,100 and 1,200, chiefly Hawaiians; but within the past year or two the disease is making among the foreigners here (white people) considerable inroads. If you have ever lived here you must have learned that segregation is the proposed policy of the Government in dealing with the disease. Yet for years the law was out of the caprice of the politicians; to-day we are reaping the benefits. Segregation is better carried out to-day, but it is far from thorough.”

President Smith of the Hawaiian Board of Health also wrote me as follows:

“Here in Hawaii we have had much experience with leprosy for thirty years, and have sought for and are still seeking to find the best means of treating the disease.”

Father Conrardi, the Belgian priest who took Father Damien's place with the leper boys at Molokai, where he remained seven years, told me, while he stopped with me in New York last year, that leprosy was becoming less widespread in Hawaii, not because of the law of segregation, which did not prevent the actual contact between the healthy and leprous people, but because the Kanakas are dying out as a race. Damien himself became a leper because there was contact between him and the leper. Yet here in New York our Board of Health sees no danger in allowing lepers to leave quarantine and mingle freely with our people.

In the last number of the *Pacific Medical Journal*, San Francisco, the editor says:

“It would seem that we were in error when we claimed in our last issue that there were not more than 100 lepers in the United States. Dr. Ashmead of New York states there are 400 lepers in Louisiana, only 23 of whom are isolated. The doctor also states there are at least 100 lepers in New York State. Dr. Ashmead knows a bank teller who is a leper and handles money every day. It is estimated there are 500 lepers in Havana Province. It is claimed there are Japanese lepers engaged in catching and canning salmon along the Columbia River. Dr. Ashmead claims that there are also many Philippine lepers in California and Washington.”

Hence there must be some other reason besides imperfect seg-

regation to account for the spread of leprosy in Hawaii, where it is estimated to-day there are 4,000 lepers in all.

I have been occupied for some years with the study of the relation which may exist between fish diet of the Japanese and some other nations and leprosy. I think such a relation would be firmly established if the leper bacillus could be cultivated, say, on the gold fish, the most Japanese of all fishes. The carp is eaten alive in Japan, which is a fact of general knowledge, though not the gold carp. The latter is exceedingly susceptible of disease; different kind of fungi tackle it as soon as a scale gets off. Sometimes without any such cause the fish dies away and the scales appear to be all turned up. No cultivation of the leper bacillus outside of the human body has ever been accomplished. I myself have already removed scales from the gold fish and inoculated the latter with the leper bacillus, but without result; the fish died.

United States Consul Sol Berliner recently made a report to the State Department at Washington on leprosy in the Canary Islands. His opinion was that the disease is endemic among the people of these islands on account of their eating a good deal of fish.

I beg to say that this belief is quite common to many leper countries, and even medical authorities indorse it. Mr. Jonathan Hutchinson, the distinguished dermatologist of London, and myself, also believe that there is an insidious connection between fish and the propagation of leprosy.

Since the middle ages leprosy has progressively declined in Europe, excepting in fish-eating countries. Norway, Spain, Portugal, the Baltic States of Russia, Iceland, the fishing provinces of France, have still leprosy. Leprosy scourages the fish-eating countries of the Orient, Japan and China, where Buddhist law prohibits the killing and eating of animals. In Japan raw living fish are eaten even while the flesh quivers. Mr. Hutchinson believes in the fish alimentation theory of propagation of leprosy. I believe that fish and mosquitoes act together as intermediary hosts for the transference of the leper poison; that mosquitoes that have bitten lepers become food for fishes, which then transmit the germs or spores to man when eaten raw.

Prof. David Starr Jordan, Chief of the United States Fish Commission to Hawaii, promised me he would take some interest in investigating the question, which interests him very much. He put the matter in the hands of Prof. Everman, ichthyologist of the expedition. My brother, Prof. William H. Ashmead, of the

United States National Museum, was the entomologist who accompanied these gentlemen to Hawaii last summer. Prof. Jordan wrote me that he had found while visiting Japan that many kinds of fish were eaten raw. The gold fish, which he said was found in every stream, might well be an intermediary host, as might several of the fresh-water minnows.

Now when we consider the enormous reproductive power of fishes, it will be evident how readily leprosy-infected fish might propagate the spores of the disease, even inoculate the fresh-water streams of a whole country. In one lobster there were found 20,000 eggs. Fish produce an incredible number of eggs. A herring has 36,000, a smelt 30,000, a sole 1,000,000, a roach 1,130,000, a sturgeon 3,000,000, a tench 383,000, a mackerel 546 (their eggs are larger than those of most fish), a perch 992,000, a flounder 1,357. But of all fish a cod of leprosy-infected Nova Scotia is the most prolific, according to one naturalist 3,686,000 and according to another 9,444,000.

Were 1 per cent. of the eggs of a Columbia River salmon now caught by Japanese lepers, and perhaps already infected with the germ, to result in full-grown fish, and were they and their progeny to increase in the same proportion, they would in sixty years amount in bulk to many times the size of the earth.

On our Columbia River there are to-day several thousand Japanese, some of whom, I learn, are lepers. How easy it will be for those germs, through the fish—if fish and mosquitoes propagate leprosy, which we do not know is not the case—to spread through the streams of the Pacific Coast. Bream, perch, and mullet of leprosy Norway transmitted the disease to their young. Fifty female bream produce 3,000,000 young; 100 mullet produce 4,000,000 young. Just think of the rapid spread of the disease that is possible. Of course, in countries where there are no lepers there could be no spread of leprosy through the fish. Until Hawaiian fish became contaminated by Chinese lepers there were no Kanaka lepers.

I have described the feature of this theory of transmission of leprosy and presented it in an article published in medical journals of this country and Europe. The manner in which many cases of leprosy have been spread singularly agrees with the theory which I, with other leprologists, entertain as to the rapid propagation of leprosy.

ALBERT S. ASHMEAD, M.D.

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EDITORIAL.

BETTER MEDICAL GUIDES NEEDED.

We have recently been observing some cases, and we have been positively struck by the meagerness of medical books in the matter of giving reliable information in cases of disease, not only so far as diagnosis is concerned, but in that most important subject of treatment. It is a matter of common observation among readers of medical works that their authors seem to carefully avoid certain topics, either because they have not observed certain conditions or because their knowledge of them is so meager that they dare not risk any *ex cathedra* opinions. We have also observed that works dealing in symptomatology fail to record what conditions are possibly indicated by these symptoms. Of course, the well-trained observer who examines thoroughly and can make a positive diagnosis upon a complete scientific examination in which the more advanced methods have been employed, is competent to formulate the proper treatment required

and can reasonably expect success from his efforts. But it is of the practitioner who is very busy and has little or no time to devote to the requirements of his art we propose to speak. He must have some reliable guide to place him upon his guard; to point out the pitfalls and help him to avoid falling into them. This is a prime necessity which has not, up to the present time, been adequately filled by any medical work we have met in late years.

Again, it would be supposed that a good monograph would supply this deficiency. There are a number of these which when consulted fail to mention the particular type of trouble for which aid is sought. It must be remembered that no author has seen every type of disease, and that which he fails to mention may never have been seen by the authors whom he has consulted. We meet every day with cases of the most interesting character occurring in the practice of general practitioners which are never recorded. Carelessness or disinclination; or both, have contributed more to the loss of much valuable knowledge to the medical profession than ignorance. And it is the publication of such cases which enriches the wealth of material which can be made available to the writers of books, and by them disseminated to the profession at large, in that manner doing the greatest good to the greatest number.

Let us have less complaint on the inadequacy of books, and see more of the helpful spirit exercised in the way of contributing to literature. Rare cases are far from being such once they are understood. For instance, acromegaly was considered extraordinary when first described a few years ago; now it is observed sufficiently often to find a place in every text-book. We might multiply similar instances, but it is unnecessary at this time. Better medical guides will appear and be produced as soon as more activity is displayed in the matter of publishing reports of cases out of the ordinary. Let us have a smaller number of leaners and a larger one of those who are willing to help and work with that end in view. There is much valuable material lost now which should be contributed, and this would tend to the benefit both of him who gives and of those who receive. The writers of books are the quickest to take hold of everything of value which appears, and they will quickly assimilate everything of value in their books, and thus distribute broadcast material

which will prove of inestimable value to many seeking help. In addition to this, one report will lead to the publication of many similar ones, which otherwise would have never seen the light of day; and all of these, when gathered together, form a most interesting collective investigation report. What if deductions are not always correct? The record of correctly detailed facts will always prove useful. It is in this manner and by means of such help that we will be justified in expecting to see more thorough, better, and more reliable medical guides produced. The moral of all of which is: write for your medical journal, whose editor will always be only too glad to dress up your article if it is a little crude in some places.

TETANUS FROM VACCINATION.

Recent tetanus fatalities following vaccination have been reported from Camden, Atlantic City, Bristol, Brooklyn, Cleveland, and St. John, N. B. These untoward occurrences have led to very thorough investigations, which at the time of this writing are still being carried on by the respective health departments of the cities named above. A natural query which readily suggests itself, and which is taken under consideration, is as to whether the tetanus toxin was derived from the vaccinifers or the points infected by carelessly permitting them to lie exposed to some possible source of infection. A most gratifying fact in connection with this matter, and one which emphasizes the practical value of the method employed, is that not in a single instance was the aseptic, glycerinated vaccine virus of Parke, Davis & Co. used. The practice of furnishing the aseptic vaccine in hermetically sealed glass tubes is a further evidence of the correctness of the method and a guarantee of the safety it ensures. We are pleased to make a note of this, for this firm has made it a point of business honor to furnish the medical profession with nothing but pure products, and this incident is a further proof that it carries out its guarantees and fulfills all its obligations. Free vaccine points, like everything else which is free, is often apt to be worthless or dangerous, more especially in medical products. The best is the cheapest and ever will remain so. The cheap doctor will use free vaccine and antitoxin; the expensive physician will avoid them and get the best only to use on his patients.

HAVE MUNICIPALITIES A RIGHT TO MANUFACTURE ANTITOXIN?

This question is suggested by comparatively recent unfortunate events which have taken place in New York City and in St. Louis. Investigations have been inaugurated to determine the cause of these occurrences, and they have been fixed with more or less satisfaction to the municipalities concerned, but in a manner which carries a moral with it for medical men. It has been found that there existed some negligence somewhere, and this negligence has not only proven disastrous, but even fatal in a number of cases of diphtheria. It almost looks like a massacre of innocents and an imposition upon a number of worthy members of the medical profession. It has been determined clinically that the children who died were the victims of tetanus, and the origin of this can be easily traced to but one cause—the horse from whose blood the serum was obtained and which served as the antitoxin. These findings have been further confirmed by finding the horse suffering from a marked case of tetanus, for which he was promptly shot. Such are the facts in the case, and with these prolegomena we may be permitted to draw such conclusions as they warrant in the consideration of the question before us. The matter as it has been laid before the lay and the medical public is based upon a purely economic basis. It has been argued with some apparent show of reason that a municipality cannot afford to buy antitoxin for gratuitous distribution; that it can be supplied much more cheaply by having trained employes to prepare it, at really a purely nominal cost, as they are paid for the performance of other duties with which the manufacture of antitoxin in nowise interferes. This would be a very good argument were it true in every particular. But unfortunately the assertions made will not bear a scrutinizing investigation. Those things which have been found have somewhat rendered nugatory the specious claims advanced by those who desire to uphold the economic plan. What matters it that thousands of dollars be saved if but one single life is sacrificed? The life of an individual is beyond all price, and no corporation or municipality has a moral or a legal right to declare, upon its own authority, that the lives of the poorer classes are not fundamentally worth as much as those of the richer.

Direktion is charged on the part of employes in their manufacture of antitoxin. The first and most grave is that of employing a horse with tetanus as the furnisher of the antitoxin serum. This in itself would be more than sufficient to bar the attempt of a municipality to enter into such an enterprise. In the next place, a charge equally as grave is made that control injections on guinea pigs have not been made. A third allegation made in St. Louis, in addition to the other two, is that the flasks containing the antitoxin were not properly kept and labeled, so that no certainty could be placed upon its non-virulent character or upon its having been properly tested. Any one of these charges is in itself of a sufficiently grave character to condemn the attempted manufacture of serum by any municipality. It is a notorious fact that in such cases blood is drawn quite a large number of times, and in consequence of this the antitoxin is not up to the standard of units which it should possess. It is for this very reason that Roux of Paris, the discoverer of antitoxin, never makes but one drawing of blood from a horse, and this method it is which has made his antitoxin so reliable and so successful in the treatment of diphtheria. The horses which are employed for the purpose of making antitoxin are in nowise injured by a single bleeding, and this minimizes the cost to such an extent that in the end it is cheaper than to bleed one practically to death.

We already see the filing of suits for damages by the parents of the children who have succumbed to tetanus superinduced by antitoxin. Whether these suits will be decided adversely to the city or not it is impossible to say. What can be stated positively is that, in either circumstance, a direct money loss will be the result, and municipal antitoxin will not be used by physicians or permitted to be used upon children by their parents. It may be verified by anyone, not necessarily an adept at figures, that a good reliable antitoxin manufactured by a respectable firm would in the end be much cheaper. In fact it is more satisfactory in all respects, and untoward effects are not observed. It cannot be said with any degree of truth that such a product is not produced, for it is a notorious fact that the well known and reliable house of Parke, Davis & Co. of Detroit do, and point with pride to its record of never having had any but the best of results follow the use of their product. This is most natural and to be expected

for various reasons. With them it has always been a matter of pride as well as of principle to produce none but the best and purest therapeutic preparations. It may be objected that this is a purely commercial matter; but granting this, from a purely commercial point of view, it is to their advantage as well as profit to establish a reputation for purity and reliability of medicinal and therapeutic products. This they have done, and so firmly established is their reputation in this respect that they have gained the implicit confidence of the better portion of the medical profession. Their aseptic glycerinated vaccine is without a peer, and their antitoxin has no superior. This position has been attained by the care exercised in their preparation, as well as the bacteriological and biologic tests to which every batch of their products is subjected. The products are never marketed until proven, and every possible check upon inferiority is placed upon them. As a natural result success has attended their efforts directed in so honest and praiseworthy a direction.

A consideration of the facts which have been given is sufficient to answer the question we have originally put to the reader. To make such a peculiarly important product and one upon which so much depends as antitoxin should be a special business, to which all the skill and science obtainable should be given. It cannot be made a side line or little supplementary business. Such known firms as that of Parke, Davis & Co. make of the manufacture of antitoxin a separate department in which antitoxin and nothing else is made. All the skill and science of the employes in this department are directed to the proper production of this one therapeutic agent, and the result is a specialization in this line whose results are of the best. In a municipality it is an extra portion of work exacted of employes, who certainly cannot be expected to do this as thoroughly and skillfully as if they had nothing else to do. We could go on and increase arguments, and back them up with interminable rows of figures, but the facts known to every one are sufficient to carry conviction when properly placed in view. As matters now exist, there can be no doubt whatever that municipalities have no moral right to manufacture antitoxin, and this industry should be properly relegated to those firms who have shown their ability to make a uniformly trustworthy article.

CORRECTION.

In our last issue the types were made to say that Dr. Morris, the author of the article on Actinomycosis Cervicis, is surgeon-in-chief of the Protestant Hospital, whereas he occupies that position in the St. Louis Baptist Hospital. We desire to call this error to the attention of our readers that no misapprehension may exist in regard to the matter.

Search for the Yellow-Fever Germ has been going on for some time at the Army Medical Museum at Washington, under the direction of Major Walter Reed and Dr. Carroll, but thus far the search has been fruitless. The investigation has included examination of the blood of yellow-fever patients, and also of infected mosquitoes, but in neither has it been possible to identify any organism as the specific hematzoön of the disease.

Death of Dr. Albert L. Gihon.—Dr. Albert Leary Gihon, Commodore United States Navy (retired), died Nov. 17, 1901, aged 68. He graduated at the Philadelphia College of Medicine and Surgery in 1853, and one year after his graduation he was appointed professor of chemistry and toxicology in his alma mater. In 1855 he entered the Navy as assistant surgeon, and was promoted to higher positions until he became Commodore in 1895. He had then been forty years in the naval service. Four months later he was retired by the constitutional limitation of age. However, whilst no longer in active service, he represented the United States Navy Department medical service at various medical congresses, as well as at prominent medical, sanitary and climatological associations. He was a distinguished member and officer of many medical societies, and was a credit both to his country and to the medical profession. Born in Philadelphia, he always affiliated most closely with his fellow townsmen. He was quite a prolific writer, having contributed generally adopted works on naval hygiene and medicine, and numerous journal articles on sanitation, naval medicine, vital statistics, medical education, etc. His loss has been deeply deplored by the entire medical profession of America and that of Europe, which held him in high esteem.

BOOK REVIEWS.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by HENRY W. CATTELL, A.M., M.D., with the Collaboration of JOHN B. MURPHY, M.D., ALEXANDER B. BLACKADER, M.D., H. C. WOOD, M.D., T. M. ROTCH, M.D., E. LANDOLT, M.D., THOMAS G. MORTON, M.D., CHARLES H. REED, M.D., J. W. BALLANTYNE, M.D., and JOHN HAROLD, M.D. With Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. Vol. III., Eleventh Series. 1901. 8vo., pp. 303. Illustrated. [Philadelphia: J. B. Lippincott Company. 1901. Price per volume: cloth, \$2.00; half leather, \$2.50. Each series consists of four volumes.

The high standard which has been set for the International Clinics has in no wise been diminished, as an examination of the volume before us will amply demonstrate. The plane which has been assumed by this publication has in nowise been lowered, but has been consistently kept up, and if anything each successive volume is more valuable than its predecessor. We are pleased to note that the more general branches receive the greatest share of attention, the specialties being very justly limited to a much smaller space than was assigned to them in former years. On the other hand, therapeutics, medicine and surgery have assigned to them the lion's share, and most justly, as coming more properly within the province of the general practitioner, for whom this publication is issued. The articles are not reviews of others which have appeared, but each one is specially prepared for this work and embodies the experience of the author, whose name is of established authority in the department for which he writes. It is in this manner that a really valuable as well as interesting book can be made, and its readers cannot fail to be interested in as well as benefitted by its valuable contents.

The opening article is both descriptive and clinical and very well illustrated. It is on a subject on which much has been written, but which is yet but imperfectly understood by the majority of physicians. It is on Phototherapy after Finsen's methods, and having been prepared by Dr. Valdemar Bie, the laboratory assistant at Finsen's Institute at Copenhagen, at the request of Dr. Finsen, it may be considered as authoritative. This cer-

tainly forms a fine opening article and whets the appetite for the others which follow. We will enumerate a few to give the reader an idea of the fine intellectual repast spread for him in the volume before us. Thus, Dr. J. W. H. Eyre of Edinburgh contributes a valuable article on Antitoxic Sera, their Preparation and Standardization; Dr. Louis Jullien of Paris has a special article on Gonorrhea and Marriage; and Dr. Paul Reches of Paris writes on the Drawbacks to the Special Use of Cocaine and the Accidents Due to It—a subject which is very apropos and which will help to allay the desire to push spinal cocainization beyond the limits of perfect safety. In the department devoted to medicine are to be especially noted the article on Convulsions in Infants and Children Under Three Years of Age, by Dr. John Abercrombie of London; a Case of Combined Echinococcus Disease and Tuberculosis, by Dr. Charles F. Withington of Boston; and Clinical Treatment of Inebriety by that well known American authority on the subject, Dr. T. D. Crothers of Hartford, Conn. In the department of neurology we find four articles of more than ordinary value, especially that on the Localization of Nervous Lesions, by Dr. Alfred Wiener of New York.

In the part which includes surgery are a number of more than ordinarily good articles. Some Acute Affections of the Gall-Bladder and Its Associated Ducts, by Dr. Howard Lillenthal of New York, is both instructive and demonstrative. A most useful trilogy is included in a small symposium on appendicitis. The Prognosis of Appendicitis, by Mr. A. H. Tubby of London; Selected Cases of Appendicitis, by John B. Deaver of Philadelphia; and the Surgical Treatment of Appendicitis, by Dr. A. Routier of Paris, present the subject in a very thorough manner and one that will be appreciated by both medical and surgical men. Dr. George M. Edebohl of New York gives a good clinical lecture on a case in which he performed Double Nephropexy and Inversion of the Vermiform Appendix. Two articles on diseases of the eye and throat are given, and the volume terminates with a special article on the Clinical Laboratory in Private Practice and in the Physician's Office, by Dr. C. N. B. Camac of New York. This article is full of good, practical advice, such as will enable the physician to fully equip himself for the proper examination of patients. It is entirely modern and up to the requirements of the times, and will recommend itself to every one who is at all progressive.

We have not mentioned all the good articles in this volume, but those we have furnish the reader with a good idea of the contents of this issue, and should certainly act as an incentive to the purchase of such a valuable publication. The publishers have issued it in good style and it is fit to grace the book-shelves of any medical library.

Peru: History of Coca, "The Divine Plant of the Incas."

With an Introductory Account of the Incas, and of the Andean Indians of To-day. By W. GOLDEN MORTIMER, M.D. 8vo., pp. 576. With One Hundred and Seventy-eight Illustrations. [New York: J. W. Vail & Co. 1901. Price, \$5.00 net.

This is a volume which is fascinating and will be read with avidity by non medical as well as medical men. The author did not intend it to be a book on the growth, botany, therapeutics, and medical qualities and uses of coca. Whilst all these subjects are touched upon, he gives us a volume which is replete with information on the history, customs, art and other points connected with the life of the ancient as well as modern Peruvians. As the publishers very truthfully say, "travel, adventure, antiquities, conquest, history and the philosophy of living are so cleverly blended with the scientific facts of the subject that, no matter what may be one's occupation or hobby, the book will be found to be impressively entertaining to the reader." The only regret which the reader will express, after having read the book, will be that it has been finished all too soon. Such has been our impression, and we are sure that we but echo the sentiments of those who have had the pleasure of reading it.

Merely looking over the pages of this work will excite a desire to read it, and a careful examination of its contents will demonstrate the amount of care and work which has been devoted to it by its author. It required years of investigation of the most careful nature to complete it. In addition to this a thorough collective investigation was made, the data being supplied by 369 physicians who had a knowledge of coca, its products and their use. In addition to this, the thoroughness of the research may be further appreciated by the fact that a bibliography of nearly 600 titles is given. This material is certainly sufficient to lead us to expect a most superior work, such as the one which has been presented to us. The whole book has been constructed on a scientific plan, but rendered so interesting that no reader of it will tire of its contents. We know this from the testimony of others who are capable of judging a work of this character, and whose opinions are certainly worth having.

A point in regard to the book before us is the fact that everything mentioned in it is authentic. Contradictory accounts, occurring in different authors, have been carefully sifted in an impartial and judicial manner. In fact the author has devoted labor and time (some four years) to produce a work which is thoroughly reliable. He has traced the culture and uses of coca to the most remote times, and in the pursuit of his subject he has introduced us to the art, religion, archeology, and other interesting facts connected with both the ancient and the modern inhabitants of Peru. The student of history, ethnology, and archeology will find here an abundance and richness of material truly marvellous.

This portion alone is well worth the price of the book. The author has had rare opportunities afforded him to illustrate his work, having had access to and the liberty of photographing specimens in a number of unique Peruvian collections. He has studied the coca plant and its cultivation, and this has naturally added to the value of his book.

Some who read this book will jump to the conclusion at first that it is a special plea for coca; but a closer examination and careful consideration of the text will soon disabuse them of this idea. The author analyzes very critically the popular but erroneous ideas which prevail in regard to coca and cocaine, and he points out the sources of error, at the same time laying stress upon the remarkable and beneficent qualities of "The Divine Plant," as the ancient Incas called it. In these ideas he but reiterates what some of the best authorities on the subject have said. He thinks very little of the anesthetic properties of cocaine as compared with that quality of coca which enables an individual to endure fatigue and do without food all this without suffering any reaction.

The book is an exhaustive one, and the author has rendered the whole available for reference by an exhaustive index covering 32 double-column pages. This certainly gives an added value to it. The publishers have made a very handsome book of it. It is printed on heavy paper, from new type, profusely illustrated, handsomely bound with tinted edges, with gilt top. It is a book fit to grace any first-class library, and no collection of medical books can be regarded as complete without a copy on its shelves.

An International System of Electro-Therapeutics. For Students, General Practitioners, and Specialists. By numerous Associated Authors. Edited by HORATIO R. BIGELOW, M.D. Second Edition, thoroughly Revised and brought up to the Present Date, with several entirely New Departments embodying the most Recent Developments of the Science. Edited by G. BETTON MASSEY, M.D. 8vo., pp. 1147. Thoroughly Illustrated. [Philadelphia: F. A. Davis Company. 1901. Price, delivered, cloth, \$6.00 net; sheep, \$7.00 net; half russia, \$7.50 net.

This is a monumental work which has been written by a number of associate authors, each one of whom is authoritative on the subject which he discusses. As a result of this, we have a complete whole in which all the parts fit into one another, this having been accomplished by the editor. So well has this part of the work been done that it leaves nothing to be desired, and the entire production as it stands to-day forms in itself a complete library on the subject of electro-therapeutics bound in one volume. It is and will remain a most excellent book of reference on the subject, to which physicians may refer with confidence, and with

the certainty that what is there written is reliable as well as useful. We expect that the thorough revision to which it has been submitted will win for it a host of new friends, besides retaining the many old ones which the first edition made for itself. That issue was no longer up to the times, which was naturally to be expected in view of the fact that so many and such important advances have been made in all departments of electrical knowledge within comparatively a few years.

In this edition we find evidence of the revision which it has undergone upon almost every page. The editor has acquitted himself of his task in a very creditable manner indeed. Four entirely new articles are to be found in this edition. These are: the Galvanic Current, by Dr. G. Betton Massey; the Galvanic Treatment of Aneurism, by Dr. D. D. Stewart; Roentgen Rays, by Dr. Max J. Stern; and the Treatment of Cancer by the Cataphoresis of Mercury, by Dr. G. Betton Massey. There have also been numerous additions made to every contribution, the sum total of which has been contributed by different American and European authors, thus giving the work an international character. Electro-therapeutics in all its applications is discussed in this volume, as will be evidenced by but a short and cursory glance at its contents. Section A is purely introductory, but very interesting. Section B contains nine separate contributions, which treat of the different phases of electro-physics and electro-physiology. This forms a most important part, especially as it is very useful for the acquirement of a clear idea of the subject, more especially as related to the purely therapeutic applications of the different forms of electricity. Section C is one which will prove of especial interest to a large class of practitioners. It considers the applications of electricity in gynecology and obstetrics. This section has quite a large number of contributors, all well known and expert in their chosen field of diseases of women. Section D is devoted to the electro-therapeutics of diseases of the nervous system. In this are taken up the treatment of diseases of the brain, of the spinal cord, of the peripheral nerves, and of the neuroses. Section E is taken up with a consideration of the electro-therapeutics of disorders of the abdominal and thoracic viscera. Section F, which includes but one author, is concerned with the subject of electricity in the diseases of childhood. Section G, which terminates the book before us, is occupied by the subject of electro-surgery. The treatment of cancer forms a by no means unimportant portion of this, and a very important contribution is that on the treatment of saccular aneurism, by Dr. D. D. Stewart.

The book is well gotten up, well printed, and liberally illustrated. It is carefully and thoroughly indexed, and can justly lay claim to being the largest, most thorough and practical treatise on the subject which has appeared in late years. It is written by a distinguished corps of collaborators, and this alone would be a

sufficient guarantee of its merits, which a careful examination of the book will impress upon any one who consults it. We are very much pleased with this second edition, and are sure that it will meet with that success which it eminently deserves.

A Treatise on the Acute Infectious Exanthemata, including Variola, Scarlatina, Rubella, Varicella and Vaccinia, with Especial Reference to Diagnosis and Treatment. By WILLIAM THOMAS CORLETT, M.D., L.R.C.P. London. 8vo., pp. 392. Illustrated by 12 Colored Plates, 28 Half-tone Plates from Life and Two Engravings. [Philadelphia: F. A. Davis Company. 1901. Price, delivered, \$4.00 net.

The value of this book can only be measured by the importance of the subjects with which it deals. All of our readers are aware of the large number of small epidemics of smallpox which have been observed and reported upon of late. They may be further aware of the fact that many of the quarantined cases were eczema, syphilis, or some other cutaneous affection mistaken for variola. In view of these facts, a treatise like the one before us has a more than ordinary value, not alone in the way of educating and perfecting physicians in the matter of diagnosis, but indirectly in affording protection to the community and protection to those individuals not affected by that most dreaded of all diseases—smallpox. Another fact which makes the book more than ordinarily valuable at the present time is the circumstance that epidemics are being reported as present in a number of States, and the spread of the disease is recognized throughout the country.

Dr. Corlett has written an eminently practical work, and one that was much needed. The principal feature is the large number of good plates which are to be found throughout its pages; The colored ones are particularly good, although the half-tones are by no means inferior in execution. The value of these plates to him who desires and should study the subject is rendered all the greater by the fact that clinical and bedside study of the infectious exanthemata is almost impossible to under-graduates, and but very few post graduates can avail themselves of the opportunity from the fear of transporting these diseases and thus infecting their patients. In view of this fact, the treatise before us has an added value which cannot be overlooked by any one. The author presents us with typical variola on the different days of the eruption, and also portrays different varieties of the disease. He does the same thing with rupeola, scarlatina, rubella, varicella and vaccinia. The clinical descriptions which are given are of a high order of merit, and particular stress is laid upon differential diagnosis to enable the physician to distinguish between these troubles and those skin diseases which resemble or simulate them. The treatment which is given is up to the latest scientific

research and practice. In a word, this treatment is modern, thorough and reliable.

A work of this character was very much needed, and, as the author remarks, "the present volume is the outgrowth of a need for such a work, felt by him when young in the practice of medicine." The lack of opportunity, the isolation of such cases, and the absence or small number of special hospitals devoted to these diseases, are all factors which still further contribute to a deficiency of a proper knowledge of them. We are more than pleased to see this work presented to the medical profession, and can heartily recommend it to all students of and graduates in medicine as a reliable as well as valuable guide and instructor in the subjects treated of by its talented author. We hope to see every physician avail himself of this opportunity of obtaining it, and thus providing himself with a reliable adviser and safe guide. He will find it invaluable in doubtful cases, and always useful in the diagnosis and treatment of all cases of the infectious exanthemata.

O D.

Transactions of the American Electro-Therapeutic Association. Ninth Annual Meeting, held at Washington, D. C., Sept. 19, 20 and 21, 1899. Tenth Annual Meeting held at New York City, Sept. 25, 26 and 27, 1900. 8vo., pp. 391. [Philadelphia: F. A. Davis & Co. 1901. Price, delivered, \$2.00 net.

These Transactions are certainly to be included among the best of this class of books which have been lately issued. Whilst the American Electro-Therapeutic Association is still young in years its members have made up in deficiency of age by a more than ordinary excellence in their contributions to their chosen field of therapy. In the volume before us are included the Transactions for the years 1899 and 1900, and the reader will find in this volume those very things of which he stands most in need and which are not included in text-books. It is in this manner that we are enabled to profit by the contributions of experts in electro-therapy, and thus have placed in our way methods by which we will be enabled to attain satisfactory results. We cannot do more than give a general idea of the contents of this volume by mentioning a few of the more prominent as well as interesting papers which have been presented at the meetings:

Dr. Robert Reyburn of Washington, D. C., has a paper on the Power of X-rays to Penetrate Through Metals. This is illustrated, and the author has opened up a new line of investigation in regard to the true nature of the Roentgen rays. The author expresses his belief that all bodies are permeable to these rays in some measure. Dr. Robert Newman of New York proposes Modifications of Bottini's Galvano-Cautery Operation for Hypertrophy of the Prostate. His proposed improvements consist

in: 1. Having the handle in one light, convenient piece. 2. Having the current-breaker under the immediate control of the index finger. 3. Having the fenestrum thoroughly filled up, whereby the instrument is more thoroughly insulated and less liable to become heated. 4. Having the tube filled up, thus preventing it from getting wet or blocked with debris inside. He uses a storage battery to heat the wire; and the potential must be regulated by a rheostat. An excellent paper is that by Dr. Georges Apostoli of Paris on the Therapeutic Action of Currents of High Frequency in Arthritism. A useful contribution is that of Dr. Fouveau de Courmelles of Paris on Some Interesting Cases of Radiography. The author very satisfactorily demonstrates this advanced method of making diagnosis, and illustrates the happy results obtained by the recital of cases. Electrotherapy, by Dr. W. S. Watson of Fishkill-on-the-Hudson, N. Y., is a useful paper. Dr. G. Betton Massey of Philadelphia is represented by two papers on the Treatment of Cancer by Cathartic Diffusion of Oxychloride of Mercury and Zinc, and Electricity in Nervous Diseases Peculiar to Women.

Dr. Eugene R. Corson of Savannah, Ga., contributes Some Thoughts on Old Crookes' Tubes. We are given in the Transactions for 1900 an excellent symposium on Electricity in Tuberculosis; and another symposium on Electricity in Gynecology. It is beyond all doubt a great advantage to group papers in this manner, both to the writers as well as to the hearers of the papers, and it also renders the discussions better and fuller, in so far as the subject under discussion is covered. A very valuable paper is that of Dr. Eugene R. Corson of Savannah, Ga., on X-ray Photography. In this the author is very full and explicit in the description of the technique, not only of the X-ray proper, but the development as well as exposure of negatives. Practical workers in this field will appreciate this contribution.

We have mentioned but a very few of the papers read at the two meetings, but they will give the reader a somewhat inadequate idea of their importance and value. The book itself is well printed, and presents a handsome appearance. Unlike ordinary volumes of transactions, it is worthy of a place, next to a good text-book, as a valuable supplement on electro-therapeutic methods.

Libertinism and Marriage. By DR. LOUIS JULLIEN. Translated by R. B. DOUGLAS. 12mo., pp. 169. [Philadelphia: F. A. Davis Company. 1901. Price, \$1.00 net, delivered.

This little book opens with some prolegomena full of sound advice to the physician in regard to the manner of protecting prospective brides from venereal infection, and at the same time saving the male patient a large amount of mortification and subsequent unhappiness. The major portion of the book is devoted

to a consideration of gonorrhea in the male and female, its complications, and its remote effects. This is given in a most thorough manner and shows the master hand of one who is one of the recognized living authorities on venereal diseases. The booklet before us could be easily read in a couple of hours, and such reading would lead to a second, more slow, and more attentive perusal of its contents. It is so full of information, so thorough, and so searching in its treatment of the subject that every page will lead to a train of thoughts leading to some valuable conclusion. So clear has the author made every point that we are certain that many erroneous or false ideas on the subject of gonorrhea will be swept away and leave the reader with a clearer and more accurate conception of the subject in hand.

Blenorrhoids, as Diday first called them, are considered in very short order. The author mentions several varieties, all reducible to those of internal or of external origin. Each one is a non-specific urethritis, as the discharge, although it be purulent, contains no gonococci. Whilst he does not mention it, it shows the importance of making a microscopic examination of the discharge in every case of urethral discharge. It is in this manner only that the non-specific character of such a urethritis can be established. The author makes his book very interesting by the recital of cases, which he does in such a manner as to make them almost anecdotal.

The translator is certainly not a medical man, as he does not always render a good English translation of a French word. Thus, on page 148 he speaks of a *cicatrice* (which is French) when he means *cicatrix* (Latin) or *scar* (English). On the same page he says: "As in the man," when he means "As in man;" or "As in the male." However, the translation is a fairly good one and can be easily understood despite a few lapses here and there like the one quoted.

O-D.

An Introduction to Chemical Analysis. For Students of Medicine, Pharmacy and Dentistry. By EGBERT W. ROCKWOOD, M.A., M.D. 12mo., pp. 255. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$1.50 net.

This little volume forms a very useful introduction to chemical analysis, and imbues the subject with sufficient interest to induce the student to pursue the subject. In fact, the author has so constructed his work that its usefulness and practical application become both apparent and foster a desire to learn more. Of course, no attempt has been made to do more than give a brief outline of the subject, but it is done in a very clear and succinct manner. We were highly pleased at the method used for this purpose, and feel confident that teachers of chemistry will appreciate this addition to their armamentarium librorum. The author describes very fully the laboratory requirements in the way of

apparatus, and he does not specify more than is of use, avoiding the demand for complicated and expensive apparatus.

He gives good methods in qualitative analysis, both inorganic and organic; and a part which will prove of more than ordinary value to students of medicine and of pharmacy is that part devoted to the determination of the presence of alkaloids of a poisonous nature. The various methods of analysis are given, and this in a positive manner. All the qualitative tests which are given are of known value, and thoroughly to be depended upon by the investigator. In addition to this qualitative analysis, the author gives a description of chemical and therapeutic incompatibility. And it is not alone in this respect that chemistry is most valuable to the student, but also in the determination of antidotes for known poisons, as his study of reactions will teach him the formation of inert compounds.

In addition to qualitative analysis, this little book deals with volumetric analysis, a method which, whilst not as accurate as the gravimetric method, can lay claim to being more rapid and fairly accurate. It is one especially adapted to the busy man or to him who cannot indulge in the luxury of expensive scales and other apparatus needed in the weighing method. In Part III. applied analysis is discussed, the subjects embraced in this being: the sanitary examination of water, the detection of poisons, and analysis by means of the blow-pipe. In Part-IV., which concludes the book, are given the preparation and testing of reagents, the chemical elements—symbols and atomic weights, and the metric system. The last is used throughout this manual.

This book is one which should certainly prove popular with students. It is eminently practical and exactly adapted to their needs, as well as to those of post-graduates who do not feel inclined to make a special study of chemistry and still desire to have a good working idea of analysis, both qualitative and quantitative, in so far as it applies to medicine and pharmacy. - Dentists will also find it profitable to consult this book.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, other than Drug-Giving, Useful in the Prevention of Disease and in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D. Vol. VI. Dietotherapy and Food in Health. By NATHAN S. DAVIS, Jr., A.M., M.D. 8vo., pp. 372. [Philadelphia: P. Blakiston's Son & Co. 1901. Price for the complete set of eleven volumes, \$22.00.

It is a painful truth that the general and almost universal conception of diet is that it means a restriction of food instead of a proper selection of alimentary articles, which it really is. Formerly this was done empirically and by rule of thumb; but new investigations into the chemistry of foods as well as their quali-

ties, their susceptibility to digestion, assimilation and the metabolic changes they undergo, have made the subject of dietetics one founded upon basic scientific principles. The progressive physician no longer orders "light" food, or restricts himself to toast and tea. He studies his patient and the conditions which are present, and as a result he orders that which is frequently of more benefit than his medicines. Dietotherapy has long been recognized by the laity and its importance and value duly appreciated. It cannot be denied that many good results have followed the crude attempts made to furnish food that is strengthening, and every one of our readers remembers the time when such was made for him, when a mere child, by a solicitous mother, aunt, granny, or other relative. These crude attempts were but the beginnings of what to-day has really become a science, whose field is not restricted by disease, but also includes the proper method of supplying the right sort of food to the healthy. This is certainly purely physiologic and as a method of treatment it ought certainly be superior to drug-giving, as it certainly is more pleasant to the patient.

In the book before us the author has added a most valuable chapter to the subject of dietetics. Everything is rendered as clear as possible, in language which is easily understood. The volume is divided into two equal parts, the first of which deals with the General Principles of Diet and Diet in Health. In this is to be found a consideration of the elements of food, animal foods, vegetable foods, beverages, infant feeding, and food as a cause of disease. This portion of the book is one that should be read not only by physicians, but ought to be placed in the hands of every intelligent layman. It would certainly help to correct many erroneous ideas, which at times are positively injurious when carried out by those ignorant of the dangers which attend a practical application of them. In speaking of alcohol the author states that it is unnecessary in health, and those who have not strong self-control or inherit a love of liquor or a tendency to inebriety, to gout, to arterio-sclerosis, or to other degenerative changes, are better off without it; to which we all say, amen. In this part is reviewed diet in the training of athletes, as well as that for brain-workers.

What is perhaps of more interest to practicing physicians is Part II., devoted to Diet in Disease. We have here given to us the proper diet in all the diseases which usually occur, this being systematically classified according to the organs affected. The diet in infectious diseases is very properly dwelt upon, as well as that to be adopted in diseases of the blood. Diet in skin diseases is made a very short chapter, and most judiciously so, as it is most difficult to establish one that can be made invariable. Whilst a diet is given for syphilitic laryngitis, we are surprised to find that none is given for syphilis in general. This is a sys-

temic, infectious disease, in which, beyond all doubt, diet plays a great part in treatment and is an adjuvant of no mean value.

The entire volume is very full, and replete with good advice which cannot fail but aid the practitioner in his treatment of disease, as well as put on a brake to over-medication. We are very well pleased with this volume, which will no doubt open up a good field for many and suggest hints that will be adopted with profit. They will find the truth of the old saying that "it is better to go to the butcher than to the druggist" verified.

A Manual of Volumetric Analysis. Treating on the Subjects of Indicators, Test-Papers, Alkalimetry, Acidimetry, Analysis by Oxydation and Reduction, Iodometry, Assay Process for Drugs with the Titrimetric Estimation of Alkaloids, Estimation of Phenol, Sugar, Tables of Atomic and Molecular Weights. By VIRGIL COBLENTZ, Ph.D., Phar. M., F.C.S. 8vo., pp. 181. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$1.25 net.

Volumetric analysis enjoys a number of advantages over the gravimetric, and yet it requires no mean order of skill and amount of care to be satisfactory. It is to-day regarded as among the most delicate chemical methods which are employed, and as care is taken so are results accurate. The great popularity of this method of analysis has been due to the simplicity of the apparatus employed, as well as to the rapidity of its manipulations combined with exactness of results. This rapidity in perfecting an analysis is merely relative, for it is often a tedious matter to make a perfect standard solution; and it is also a frequent necessity to make fresh standard solutions in the case of those which decompose in a short time. Another point not to be forgotten is the personal equation so far as accurate vision is concerned when the question of indicators arises. Some reactions give such very faint colors that a good and sharp eyesight is necessary to detect some very faint changes in color.

The author has devoted special attention to the theory of ionization and its application to indicators. In other words, ionization is known as dissolution; and the theory is one which explains the action of the indicators in a very plausible manner. When adopted in practical work it is of value, and explains in a very satisfactory manner many otherwise apparently obscure conditions observed. This certainly facilitates the processes to be used, and enables the analyst to determine for himself the ions in a given solution. Any practical analyst will see the value of this theory so far as it has been developed. The book before us is both thorough and comprehensive, and is particularly adapted for use in the laboratory as a reference book, and to the study as one to be seriously read and considered. The author has given us a manual of more than ordinary value, and one which should

be in the hands of every chemist as well as student of chemistry. It is replete with valuable information and methods, and is up to the latest discoveries, and meets every requirement in the elucidation of volumetric analysis. Of course, it is merely a manual, but still it is far superior to many treatises written in the library and not by advanced practical chemists, as the author of the book before us has shown himself to be. We expect to see a large sale of this book, as it certainly deserves it.

An Experimental and Clinical Research into Certain Problems Relating to Surgical Operations. An Essay Awarded the Alvarenga Prize for 1901 by the College of Physicians of Philadelphia. By GEORGE W. CRILE, A.M., M.D., Ph.D. Large 8vo., pp. 200. Illustrated. [Philadelphia: J. B. Lippincott Co. 1901.

As would naturally be expected of the Alvarenga Prize Essay, the one before us breathes a scientific spirit which is really refreshing. The author is Professor of Clinical Surgery in the Medical Department of the Western Reserve University of Cleveland, and in this essay he has presented us with a valuable series of experiments from which conclusions of the greatest import to surgery may be drawn. The questions which are taken up and discussed, as well as supplemented by experiments, are: On the effect of severing and of mechanically irritating the vagi; Research into effect of intravenous infusion of saline solution; On the physiologic action of cocain and eucaïn; and, On the effect of temporary closure of carotid arteries. A reading of the book before us will show the immense amount of labor involved in carrying out the various series of experiments necessary to determine the interesting questions. The carefulness as well as exactness with which all three have been carried out are certainly a great credit to the author who has planned them and seen them to a successful conclusion. We have certainly been struck with the thoroughness of the work here detailed, and expect ere long to see a larger work, covering more ground, emanate from the same writer. He has struck the right path for the progressive to follow, and there is no doubt in our mind that the blazes he has made will serve as guides to future investigators.

LITERARY NOTES.

Books Received.—The following books were received during the past month, and are reviewed in the present number of the JOURNAL:

An International System of Electro-Therapeutics. For Students, General Practitioners, and Specialists. By Numerous Associated Authors. Edited by Horatio R. Bigelow, M.D. Second

Edition, Thoroughly Revised and Brought Up to the Present Date, with Several Entirely New Departments Embodying the Most Recent Developments of the Science. Edited by G. Betton Massey, M.D. 8vo., pp. 1147. Thoroughly Illustrated. [Philadelphia: F. A. Davis Company. 1901. Price, delivered: cloth, \$6.00 net; sheep, \$7.00 net; half-russia, \$7.50 net.

A Treatise on the Acute Infectious Exanthemata, Including Variola, Scarlatina, Rubella, Varicella and Vaccinia, with Especial Reference to Diagnosis and Treatment. By William Thomas Corlett, M.D., L.R.C.P. Lond. 8vo., pp. 392. Illustrated by 12 Colored Plates, 28 Half-tone Plates from Life, and 2 Engravings. [Philadelphia: F. A. Davis Company. 1901. Price, delivered, \$4.00 net.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A.M., M.D., with the Collaboration of John B. Murphy, M.D., Alexander D. Blackader, M.D., H. C. Wood, M.D., T. M. Rotch, M.D., E. Landolt, M.D., Thomas G. Morton, M.D., Charles H. Reed, M.D., J. W. Ballantye, M.D., and John Harold, M.D. With Regular Correspondents in Montreal, London, Paris, Leipzig and Vienna. Vol. III., Eleventh Series. 1901. 8vo., pp. 303. Illustrated. [Philadelphia: J. B. Lippincott Co. 1901. Price per volume: cloth, \$2.00; half-leather, \$2.50. Each series complete in four volumes.

Transactions of the American Electro-Therapeutic Association. Ninth Annual Meeting, held at Washington, D. C., September 19, 20 and 21, 1899. Tenth Annual Meeting, held at New York City, September 25, 26 and 27, 1900. 8vo., pp. 391. [Philadelphia: F. A. Davis Company. 1901. Price, delivered, \$2.00 net.

A Manual of Volumetric Analysis. Treating on the Subjects of Indicators, Test-Papers, Alkalimetry, Acidimetry, Analysis by Oxydation and Reduction, Iodometry, Assay Process for Drugs, with the Titrimetric Estimation of Alkaloids, Estimation of Phenol, Sugar, Tables of Atomic and Molecular Weights. By Virgil Coblenz, Ph.D., Phar.M., F.C.S. 8vo., pp. 181. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$1.25 net.

The Medical News Visiting List for 1902. Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-

patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal grain leather, \$1.25. Thumb-letter Index, 25 cents extra. [Philadelphia and New York: Lea Brothers & Co.]

Libertinism and Marriage. By Dr. Louis Jullien. Translated by R. B. Douglas. 12mo., pp. 169. [Philadelphia: F. A. Davis Company. 1901. Price, \$1.00 net, delivered.

An Introduction to Chemical Analysis. For Students of Medicine, Pharmacy and Dentistry. By Elbert W. Rockwood, M.A., M.D. 12mo., pp. 255. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$1.50 net.

Peru: History of Coca. "The Divine Plant" of the Incas. With an Introductory Account of the Incas, and of the Andean Indians of to-day. By W. Golden Mortimer, M.D. 8vo., pp. 576. With One Hundred and Seventy-eight Illustrations. [New York: J. H. Vail & Company. 1901. Price, \$5.00 net.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, other than Drug-giving, useful in the Prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis Cohen, A.M., M.D. Vol. VI. Dietotherapy and Food in Health. By Nathan S. Davis, Jr., A.M., M.D. 8vo., pp. 372. [Philadelphia: P. Blakiston's Son & Co. 1901. Price for the Complete Set of Eleven Volumes, \$22.00.

An Experimental and Clinical Research into Certain Problems Relating to Surgical Operations. An Essay Awarded the Alvarenga Prize for 1901 by the College of Physicians of Philadelphia. By George W. Crile, A.M., M.D., Ph.D. Large 8vo., pp. 200. Illustrated. [Philadelphia: J. B. Lippincott Co. 1901.

The Medical News Visiting List for 1902 has reached our desk. It is issued by Messrs. Lea Brothers & Co. of Philadelphia and New York, in the following forms: Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal Grain Leather, \$1.25. Thumb-letter Index, 25 cents extra. In this visiting list we find that its blank pages are arranged to classify and record memoranda and engagements of every description occurring in the practice of the physician, surgeon or obstetrician. The work opens with 32 pages of printed data of the most useful sort, including an alphabetical Table of Diseases with Approved Remedies, a Table of Doses, Sections on Examinations of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, a Diagnostic Table of Eruptive Fevers, and a full-

page plate showing at a glance the incisions for ligation of the various arteries—an invaluable guide in such emergencies.

Altogether it makes not only a most useful book, but a handsome one as well. It is one of the best-looking visiting lists we have received when its price is considered. Whilst cheap, it by no means looks cheap, and as a matter of fact is not gotten up in cheap style. On the contrary, it looks very well, and does credit to the physician who carries it.

Matthew's Blue Book, as it is popularly known, is a neatly gotten up duodecimo medical directory of Missouri. It not only gives the names and locations of the physicians of Missouri, but also their year of graduation, as well as the name of the college which conferred the medical diploma on each one. In addition, there is to be found the medical law of the state, the composition of the State Board of Health, a list of medical societies, hospitals, etc. A directory of specialists is also given, and in fact all the information that is likely to prove of interest to physicians is given in a clear, terse manner. The book is sold by Lewis S. Matthews & Co., 219 N. Tenth Street, St. Louis.

"Memoria in Eterna."—As time flies by, amid the rush and bustle of this eminently practical, work-a-day world, one unconsciously displaces from the mind of to-day the remembrances of the happenings of yesterday; there are, however, some things which should remain "in everlasting remembrance." The gentleness, strength and beauty of the personal character of William McKinley and the inestimable value of his services to the nation and the world at large, should not be consigned to the mental dust heap of oblivion, but should be cherished as a precious heritage by every patriotic American, whether native or foreign-born. Feeling confident that their friends in the medical profession will appreciate at its proper worth a souvenir which shall serve as a constant reminder of the life, character and services of our third martyr president, the Arlington Chemical Company has prepared for gratuitous distribution a magnificent enlarged production (17 x 13) of one of the finest and most faithful portraits in existence. Competent critics who have seen this reproduction have expressed themselves as surprised at the faithfulness with which the beautiful Rembrandt effect has been carried out, with its rich dark sepia tints and with the general artistic worthiness of the portrait as a whole. The advertisement of Liquid Peptonoids is so unobtrusive as to be entirely unobjectionable. The Arlington Chemical Co., Yonkers, N. Y., will be pleased to send a copy to any physician who may have failed to receive one, together with suggestions for proper method of framing.

Scott & Bowne have issued their Desk Calendar and Memorandum for 1902. It is a most useful as well as attractive bibelot for the physician's desk.

MELANGE.

Effect of Rainy Season on Malaria.—It is well known that mosquitoes cannot live in water, and therefore it is not surprising that the number of cases of malarial fever vary considerably according to the season of the year, and that the greatest number of cases occur at the onset of the rainy season, when mosquitoes are particularly abundant.

Whooping Cough in New Guinea.—In his annual report to the Colonial office, the Governor of British New Guinea says that two children who were brought to that colony from Samar, while suffering from whooping cough, started an epidemic of the disease which has raged with great fury during the past year, and has been attended with a remarkable fatality.—*Exchange*.

Occurrence of Typhoid Bacilli in the Blood.—Cole (*Bulletin of the Johns Hopkins Hospital*, July, 1901) gives the results of a research on the frequency of the occurrence of the typhoid bacilli in the blood of patients suffering from the disease. The blood was examined in both severe and light cases and the bacilli found in eleven out of fifteen. In three cases in which the organism was found the attacks were very light, while in one severe case, in which on two occasions no bacilli were found, the attack was severe and prolonged; in another severe case no bacilli were found, though the blood was examined on three occasions. This patient was pregnant; miscarriage occurred on the twelfth day of the disease, and the bacilli were found in the blood of the fetus and in the patient's urine. Positive results were obtained, most commonly in the second week, but bacilli have been found on the sixth day, and the latest on the twenty-seventh day. This paper is of importance as showing that the typhoid bacilli occur in the blood more frequently than has been supposed.

Boston Smallpox Situation.—There were 22 cases of smallpox reported by the Boston Board of Health for the week ending November 9th, three of which were fatal. This makes 115 cases reported since last July. The chairman of the board said that the hospital in use had a capacity of 50 or 60 patients. This hospital is well fitted up, and possesses the best means for

the comfort and well-being of patients. All patients able to be taken to the hospital are taken in. It is a matter of only a few hours from the time a case is known until it is comfortably situated at the hospital; that the house from which the case is taken and all infected things therein are disinfected, and all persons known, or supposed to be exposed, vaccinated and watched until the stage of incubation for this disease has passed. Cases are constantly occurring as a result of exposure to unrecognized and unreported cases of smallpox. There can be no question as to the importance of immediate vaccination for all who have not yet had this duty performed, and that revaccination is equally necessary for most people over 10 years of age who have not recently been vaccinated. Offices for free vaccination are open daily.—*Phila. Med. Jour.*

Penetrating Wounds of the Heart.—Nothing better illustrates the advance which surgery has made in recent years than the modern treatment of penetrating wounds of the heart. In another column of this issue of the *Journal* will be found a most interesting and instructive paper by Dr. Nietert of St. Louis, who reports a case of stab wound of the left ventricle, in which he exposed the heart and sutured the wound. It is unfortunate that this patient should have died of that most distressing post-operative complication, suppression of urine. The case presents many unique symptoms: in the first place the pleura was not injured and the patient at the time of operation was unconscious, a condition resulting from pressure upon the heart exerted by the blood in the inelastic pericardium. It is interesting to note that after the pericardium had been emptied the patient immediately regained consciousness and was able to converse with the operator. Nietert presents briefly the reports of twenty-two other cases of penetrating wounds of the heart, all of which were operated upon and seven of which recovered. Since ninety per cent. of such wounds which are not operated upon result in death, the mortality of the cases in which operative interference has been undertaken is very encouraging. This paper of Nietert's brings before us a subject of the utmost interest to all medical men, and we regret to say that there has been little written upon the subject by American surgeons.—*Phila. Med. Jour.*

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ORIGINAL COMMUNICATIONS.

GASTROPTOSIS AND GASTRIC MOTOR INSUFFICIENCY.*

BY J. DUTTON STEELE, M.D., OF PHILADELPHIA.

The term enteroptosis is given broadly to the symptom complex usually associated with downward displacement of the different abdominal viscera, especially of the transverse colon, right kidney, stomach, and more rarely of the liver. Study of recent literature suggests that the term is used somewhat indiscriminately. A floating liver and kidney can usually be recognized by palpation, while ptosis of the stomach is comparatively easy to diagnose where inflation is employed, but the downward displacement of the intestines is apparently assumed without inflation in those cases showing other ptoses or where Glenard's belt test is positive. That enteroptosis in the true sense of the term is very important and very frequent, is of course well known, but it may be questioned whether the presence of displaced intestines can be taken for granted in all such cases. Experience has shown the risk of assuming changes in the shape or position of the stomach without inflation, and I can see no reason why the same rule should not apply to changes in the position of the intestines.

It is the purpose of this paper to consider some cases of gastric motor insufficiency in which displacement of the stomach was the dominant feature.

Exact figures as to the frequency of gastroptosis are hard to obtain, for a number of reasons. As will be shown, it may

*Read before the Philadelphia County Medical Society, Nov. 18, 1901.

exist absolutely without symptoms. In certain conditions its presence appears to be nearly constant. Consequently to obtain statistics of its frequency, it would be necessary to examine a number of individuals with and without gastric symptoms. Thus Meinert found it in 90 per cent. of all the cases in his gynecological clinic, and in every one of a large number of chlorotic women. In a number of men examined by the same observer it was found in 5 per cent.

The tables which follow were taken from the records of fifty consecutive cases which occurred in the writer's service in the Medical Dispensary of the University Hospital and private practice. All of them presented symptoms of gastric motor insufficiency, and in each an examination of the size and position of the stomach was made by inflation.

Total cases examined.....	50
Cases showing gastropotosis.....	20
Cases showing dilatation.....	17
Cases of uncomplicated general dilatation.....	14
Cases of uncomplicated gastropotosis.....	5
Cases of combined gastropotosis and general dilatation.....	3
Cases of combined gastropotosis and dilatation affecting the pyloric end alone.....	14

It will be seen that a distinction is made between gastropotosis with general dilatation and with dilatation of the pyloric end alone. Practically all of the vertical or subvertical stomachs show dilatation of the pyloric end. As will be shown, this may be regarded as a direct result of the downward displacement, and it is probable that in such cases showing pyloric dilatation the primary condition was gastropotosis, and the dilatation secondary. On the contrary, where the dilatation affects the cardiac end as well as the pyloric, the primary factor is somewhat in doubt, but the probable sequence of events is first dilatation and then gastropotosis. In other words, the cases of gastropotosis and general dilatation belong under the head of primary dilatation, while gastropotosis and pyloric dilatation belong to the primary gastropotoses.

Men examined.....	30
Men showing gastropotosis	5, or 16%
Men showing uncomplicated gastropotosis.....	0
Men showing uncomplicated dilatation	10
Men showing gastropotosis and general dilatation	2
Men showing gastropotosis and pyloric dilatation	3

Women examined.....	20
Women showing gastroptosis.....	15, or 75%
Women showing uncomplicated gastroptosis.....	5
Women showing gastroptosis and general dilatation.....	1
Women showing gastroptosis and pyloric dilatation.....	11

These figures suggest the following conclusions :

1. In cases showing symptoms of gastric motor insufficiency, ptosis of the stomach is more common than changes in the shape and size. The ratio is as 40 to 34. The commonest gross lesion found clinically was gastroptosis and pyloric dilatation, which occurred in 43 per cent. of the cases showing changes in size and position. The next in frequency was general dilatation alone (35 per cent.). Next comes gastroptosis alone (20 per cent.) and the least common is general dilatation and gastroptosis (10 per cent.). However, the two sexes differ so in their relations to the conditions that the above combined figures are of little value.

2. Gastroptosis is much more common in females. Thus, in sixteen women showing changes in size and position, gastroptosis occurred in all but one, or 94 per cent. All the cases of uncomplicated gastroptosis were women, and in but two could dilatation be considered the primary condition. This is in accordance with the figures of other observers, and can easily be explained when the etiology of the affection is considered.

3. In males general dilatation is more common, and occurred in all but three of the fifteen men showing changes in the shape and size of the stomach. Uncomplicated dilatation is much more common, and no case of gastroptosis alone was noted. Three cases showed gastroptosis and pyloric dilatation.

4. These figures combined with those of other observers indicate that ptosis of the stomach is more frequent than has been supposed, and deserves quite as much consideration as the changes in shape or size. In women showing demonstrable alteration in the position and size of the stomach its presence is almost constant.

Pathology.—Gastroptosis implies an absence of the stomach from its normal position in the epigastrium. When a displaced stomach is inflated its upper border appears as a concave line, sometimes almost vertical, sometimes slanting from below on the

right to upward on the left, and sometimes lying horizontally. According to the degree and character of the ptosis, the condition divides itself into two varieties: First, the total displacement downward (*descensus in toto*), and, second, displacement of the pyloric alone. The first position is rare, owing to the firmness of the attachment of the cardiac end.

That the stomach ever descends as a whole is denied by Meinert, but several cases on the list belong to this class, and Riegel and most other authorities agree that it may take place. Total descent implies loosening and strengthening of the gastrophrenic ligament or a lowering of the diaphragm. The lesser curvature is usually displaced so as to be at the level of the umbilicus, and the lower border half-way to the pubis. Its shape has been variously compared to a sling or hunting horn. The pylorus and cardiac are at the same level and occupy the horns of the crescent.

Descent of the pylorus alone is by far the most common form. Then the cardiac end occupies approximately its normal condition, while the pylorus is depressed downward and toward the median line. The stomach approaches a vertical position, and its shape has been aptly compared by Kelling to a fish-hook, of which the length of degree of curvature is variable. For the sake of convenience and depending upon the degree of displacement of the pylorus, the different forms may be classified as vertical and subvertical.

In the series here reported five cases showed total descent, all of whom were women; six were cases of vertical stomach, also all women, and the remaining nine, were subvertical, including all men. It will be seen that not only three-quarters of the cases, but also the severer forms of the condition occurred in women.

Simple ptosis of the stomach may be associated with a greater or less degree of dilatation. As has already been said, this may be of two varieties: First, pyloric dilatation, which is probably a direct result of the increased demand upon the stomach muscles, due to the physical conditions arising in gastropptosis, and, second, general dilatation affecting the cardiac end as well as the pyloric. It is probable that in cases of pyloric dilatation the primary condition is gastropptosis, while in cases of gastropptosis and general dilatation it is reasonable to suppose that in a large percentage the dilatation is primary.

Etiology.—The abdomen may be compared to a vessel filled

with water. Its anterior wall and bottom are the anterior abdominal wall and the floor of the pelvis.

As the abdominal organs are practically incompressible and approximately of the same weight, there is present a condition simulating hydrostatic pressure, and it can be assumed that the uppermost organs, the stomach, colon, and liver, are upheld by and, as it were, float upon the intestines and organs beneath them.

The stomach and colon have a certain degree of motion depending upon the amount of their contents and upon the movements of respiration, change of position, etc. Ligaments control these movements and do not support more than a very small portion of the absolute weight of each organ, perhaps, as Schwerdt says, not more than one-eighth. The analogy is very close between the support of the viscera by their ligaments and the support of a man immersed in water by a very weak cord which keeps the man's head above water, but, of course, would support but a very small fraction of his weight out of water.

There is a considerable difference of opinion concerning the power of the ligaments to hold the entire weight of the organs in case the support of the abdominal walls and viscera below them was withdrawn. Meinert and Meltzing say that they cannot do so, while Blecher, Stilling, and others, following the investigations of Scarpa and Hutsche, think that the strength of the peritoneal folds is such that they may not only support an organ alone, but may withstand a considerable amount of pressure from above.

A very frequent cause for ptosis of the abdominal organs is an increase in the volume of the abdominal cavity, which produces a sinking of the contents of the lower half, and represents the lowering of the surface of the fluid upon which the stomach and colon float. Another cause is pressure from above, which of course will produce displacement by forcing the organs deeper into the lower abdominal cavity.

Assuming that the ligaments are not strong enough to support the actual weight of the viscera, then it is easy to understand how, when all the support falls upon them, stretching and ptosis take place. If, however, the ligaments are strong enough to hold the organs in place when the support below is removed, or when pressure is exerted from above, then, to explain the occur-

rence of downward displacement, we must assume a congenital or acquired weakness which allows them to stretch.

In favor of the second view is this fact, all cases of pendulous abdomen, repeated pregnancy, tight lacing, and narrow thorax do not show visceral ptosis.

How a structure like the peritoneum could become weakened idiopathically is hard to understand, and the theory that in such cases the ligaments are congenitally weak is the only one that can be easily assumed. The ptosis remains latent while circumstances are favorable and no abnormal strain is put upon the supporting bands, which are strong enough to control the movements of the floating organs, but give way when greater strain is brought upon them.

The conditions oftenest associated with increase in abdominal volume are repeated pregnancies, assuming the erect posture too soon after parturition or after the removal of abdominal tumors or ascites, the absorption of deposits of fat about the abdomen from wasting diseases, and general muscular relaxation.

Perhaps the most frequent cause of downward displacement is pressure from above, and is usually the effect of lacing or dragging of the skirt-band. The pressure comes over or just above the stomach and naturally tends to displace it downward. A rarer cause of pressure is depression of the diaphragm in cases of narrow thorax, funnel or pigeon-breast, or displacement downward of the liver from any cause.

The theory of Glenard, that all displacements of the abdominal viscera arise from the presence of adhesions, which cause the different organs to become displaced through mutual traction, is now considered to be untenable.

It has been said by some writers that phthisis predisposes to downward displacement on account of the associated narrow thorax. Kelling has shown, however, that while gastropptosis is not common in the earlier, it is quite frequent in the later stages of the disease, and it is his theory that it is the emaciation and not the shape of the thorax that is responsible.

J. Clarence Webster, of Chicago, has recently called attention to a condition that is very frequently associated with enteroptosis. This is separation of the recti muscles and stretching of the linea alba. It exists most frequently in women who have borne many children. The enteroptosis in such instances is really a

form of hernia. Owing to the stretching of the fibrous tissue around the umbilicus, the amount of space in the abdominal cavity is increased and a ptosis occurs in a manner previously mentioned.

Stiller has lately advanced the theory that visceral ptosis is always associated with the atonic habit and with cerebro-sympathetic neurasthenia. He says that a floating tenth rib is almost a constant stigma of such a condition. Stiller has many supporters, but the observations of Meinert and Zweig have demonstrated the rarity of such a phenomenon in gastroptosis. It was present in but one of my cases, a young woman of very neurotic temperament, who showed a floating right kidney and considerable gastroptosis.

Diagnosis.—The symptoms of that stage of gastroptosis in which the patient most frequently consults a physician are those of gastric motor insufficiency, and perhaps dilatation which has supervened upon downward displacement. It is of course of supreme importance to differentiate between gastroptosis and general dilatation without displacement, since the treatment of each is suited to itself alone.

The recognition of gastroptosis as a frequent cause for gastric insufficiency renders a routine examination of the size and position of the stomach indispensable in all cases showing functional disturbances.

The patients presenting themselves with gastroptosis are usually emaciated and often anemic, but not to a greater degree than is common in all disturbances of the gastro-intestinal tract.

The abdomen is often pendulous, but may be decidedly flat. A very characteristic condition, however, is that of relaxation of the abdominal walls. This renders the abdomen extremely easy to palpate, and a floating kidney or liver can hardly escape observation. Inspection shows an abnormal flatness in the epigastrium, with fullness below the umbilicus. Owing to the absence of the stomach from its normal position in the epigastrium, the pulsation of the aorta can be plainly felt. Indeed, the patients often notice and complain of this themselves. Above the umbilicus a transverse band or cord can be frequently felt, which Glenard took to be the transverse colon, but which later authorities usually consider to be the pancreas. W. F. Hamilton has demonstrated in one case by operation that this transverse band was indeed the pancreas.

A sign much employed by certain observers in demonstrating the presence of abdominal ptosis is the "belt sign" of Glenard, which is elicited by standing behind the patient, placing the hands on the lower abdomen, one on each side, and lifting upward and backward. If the procedure relieves the patient of the sense of dragging usually complained of in such cases, it is assumed that downward displacement of the stomach, and probably of the intestine, is present.

Webster suggests a sign which is of value in determining the amount of separation of the recti muscles in those cases in which enteroptosis is due to this cause. With the patient in the recumbent position the examiner places the finger tips of the right hand over the linea alba near the umbilicus, while with the left he grasps the patient's hand, and she is asked to raise the head and chest in order to contract the abdominal muscles. Through the sense of resistance thus given by the recti the extent of their separation may be determined.

The various procedures to determine the size and position of the stomach previous to the introduction of the various methods of inflation are not worthy of serious consideration.

The numerous fallacies of all the methods applied to an undistended stomach have been fully dealt with, and space will not be taken for their consideration. (See papers of Pepper and Stengel, Musser and Steele, and others.)

The following case is a good illustration of the difficulties encountered in attempting to outline an undistended stomach:

CASE 9.—Mary Jane M., aged forty-five years. Bore eleven children. Her abdominal wall was extremely relaxed. She showed the typical symptoms of dilatation and gastric motor insufficiency. Both kidneys, the liver, and spleen were floating. The case had been diagnosed as dilatation, and an attempt had been made to outline it by auscultatory percussion. The bell of the stethoscope was placed in the epigastrium, and upon percussion the note was found to change at the umbilicus. The lower border of the stomach, therefore, was thought to be at that point. When the stomach was inflated it was found to occupy the lower instead of the upper half of the abdomen. The upper border was at the umbilicus, the lower was at the pubes.

The earlier method of inflation, and one still used to a considerable extent, is that depending upon the liberation of carbon

dioxide gas by a mixture of sodium bicarbonate and tartaric acid. The advantage of this method is of course that the stomach-tube does not have to be employed. In my clinic at the University Hospital we occasionally use it. As a quick but not overly sure means of dilating the stomach it has its advantages, but for a thorough examination the use of the stomach-tube is imperative. The method is briefly as follows:

A drachm of sodium bicarbonate and thirty grains of tartaric acid are dissolved separately in small amounts of water. The patient first drinks the soda and then the acid solution. The examination must be made quickly and preferably by auscultatory percussion. We have never noticed any excessive distention by the use of these amounts of the reagents. The larger quantities, recommended by Meinert, consisting of two drachms and a drachm and a half of soda and acid respectively, have never been employed, on account of the risk of excessive distention. The disadvantages of the procedures are: That it is very hard to control the amount of dilatation, because it is difficult to determine the quantity of gaseous or liquid contents of the stomach at any given time, and because the size of the organ itself must be to a certain degree uncertain. The gas quickly escapes, and time is not given for an exhaustive examination.

In employing the method of inflation through the stomach-tube the stomach must first be emptied by the lavage. It may be inflated by placing a distensible balloon upon the end of the tube, which, when distended, fits itself to the shape of the stomach, and of course confines the air absolutely, and prevents any escape. This method is strongly recommended by Kelling, Schreiber, and Jaworski. The writer has never seen any advantage in this extra attachment, which necessitates the removal of the tube after lavage and its reintroduction with balloon in place.

Anything that complicates the procedure is undesirable, and I believe unnecessary. Pepper and Stengel state that if air is pumped into the stomach rapidly at first a spasm of the pylorus is produced, which prevents the escape of air into the intestines. At all events, a stomach inflated to a point just short of producing a sense of fullness will remain distended long enough to permit a thorough examination. The air is introduced through a Davidson syringe, or, what has proven more successful in the writer's experience, by the bulb of an ordinary atomizer appara-

tus fitted with a small nozzle. After the stomach is distended in ordinary cases it can easily be seen and palpated through the abdominal wall.

In addition, and as a check upon inspection and palpation, the following signs are of great value :

1. A high-pitched tympanic note upon percussion is obtained over the distended organ.

2. Auscultatory percussion gives the outline sharply, and, since the stomach is distended and brought against the anterior abdominal wall, the tendency to error incurred when this method is practiced upon a partially collapsed stomach is avoided.

3. When the bulb of the syringe is compressed, forcing the air through the tube, a peculiar metallic ring can be heard with the stethoscope over the stomach. When the bell of the instrument is moved along beyond the stomach limits the sound instantly loses its metallic character.

The writer regularly employs all of these methods in routine examinations, and the closeness with which they all correspond in determining the outline is most striking. The upper border can be clearly defined, even though it lies behind the liver.

A practical point of some value is to allow the air to escape through the tube before it is withdrawn; otherwise great distress is often experienced before the stomach can be emptied, probably on account of a spasm of the cardia.

In 1889, Dr. Einhorn introduced this method of illuminating the stomach by an electric light introduced at the end of the sound. This instrument he calls the *gastro-diaphane*. The patient, after the period of fasting, drinks a pint or so of water; then the tube is passed and the light turned on. The stomach is projected as a luminous area upon the abdominal wall. The apparatus is expensive, and the method cannot be advantageously combined with the observation of the amount and character of the stomach contents as can inflation, while in determining the position of the stomach it offers no advantages over the method of dilatation described.

Symptomatology.—Simple downward displacement of the stomach cannot of itself produce symptoms as long as the gastric muscle is equal to the increased demand upon it. When it fails there occurs a series of dyspeptic symptoms, which may have their origin in disturbances of motility, or of the sensory appa-

ratus, or in alterations in the gastric secretions. The fact that many cases of gastropotosis exist absolutely without symptoms is shown by the statements of Riegel, Kelling and Meinert.

This fact deserves much emphasis, and has an important bearing upon the treatment of the condition.

The most common of the direct results of downward displacement are motor insufficiency and dilatation. The work of the stomach is increased, because a greater effort is required to raise the food up to the pylorus and through it to the duodenum. Kussmaul states that in addition there is often a mechanical obstruction to the outflow of the gastric contents, produced by a bending in the upper flexure of the duodenum.

When gastropotosis is the primary condition it is probable that the dilatation affects the pyloric end alone, since this is the portion of the stomach that is most dependent, and upon which most of the extra work falls. When the ptosis is secondary to general dilatation the cardiac end will be enlarged as well as the pyloric.

Alterations in the chemistry of the gastric secretions may occur. These are probably not a direct result of the displacement, but are due to the disturbance of motility and to dilatation, which favors the retention of food and irritation of the gastric mucous membrane. It is probable that in many cases the changes in the gastric juice are not connected with the ptosis, but are due to certain conditions that may affect it without the influence of the gastropotosis. The changes in the secretions are not uniform, and cannot be considered to bear any relation to the origin of the condition.

The following is a table of the amount of free HCl found in the gastric contents of fourteen cases one hour after the ingestion of an Ewald test breakfast :

Free HCl above 20.....	2
Free HCl 10 to 20.....	5
Free HCl below 10.....	2
Free HCl absent	5

Thus in five were approximately normal, two showed hyperacidity, two subacidity, and in five free HCl was absent. While the examination of the gastric secretion is of no value in the diagnosis of the conditions it is of great importance in its treatment, especially in determining the diet.

Every case should be examined both after an Ewald breakfast of toast and tea, and after the Boas-Riegel test meal, containing meat, which is to be removed several hours after ingestion. The writer has, in several instances, found free HCl after such a meal, when it was absent after the Ewald breakfast.

As practically most cases of gastropotosis coming under observation are those in which a certain amount of motor insufficiency or dilatation exists, the symptoms are those of retention and fermentation.

Vomiting may occur, but is rare. In my series but three cases suffered from it at any time.

All showed symptoms in some degree of weakness of the stomach muscle. It will be seen that it is practically impossible, without inflation of the stomach, to distinguish between myasthenia gastrica due to atony and that arising or complicated by gastropotosis.

Chronic jaundice may accompany and apparently be directly dependent upon gastropotosis, disappearing when the stomach is replaced. It is probable that this occurs only when adhesions are present binding down the bile ducts so that the traction of the displaced stomach produced kinking and obstruction. For a further discussion of the subject see a paper by the writer ("The Association of Chronic Jaundice and Gastropotosis," *University Medical Magazine*, January, 1901).

Disturbances of sensation may occur, especially in those cases which are complicated by adhesions. Because the pylorus is displaced and bound to neighboring structures, pain will naturally be felt when the stomach is full of food or distended by gas. As an illustration of this the following case is of interest.

Daniel M., aged fifty-five years, had suffered for five years with symptoms of dilatation of the stomach, which has been diagnosed in the wards of the University Hospital. One year ago he applied at the Dispensary and complained of much pain in the neighborhood of the gall bladder and below it, which occurred from one to three hours after eating. Lavage and inflation after a test meal showed a total acidity of 64, free HCl 20, and the presence of lactic acid. The stomach was considerably dilated and the pyloric end had dropped to below the umbilicus. The diagnosis of adhesions between the pylorus and hilum of the liver was made. A belt was fitted so as to bring the pylorus back

into place. Then the pain almost instantly ceased and has not occurred while the belt fitted properly. The only reasonable explanation of the disappearance of the pain in this case is that adhesions were present between the pylorus and the hilum of the liver or the gall-bladder, and when the stomach was distended by food or gas its displacement was greater, consequently traction was made upon the adhesions, and pain resulted. This was naturally relieved by replacing the stomach by the belt.

There may be a sense of dragging and epigastric tenderness, due probably to the uncovering of the solar plexus, lying in front of the aorta and usually protected by the stomach. As a rule, however, unless adhesions are present, pain is not a prominent symptom. In none of my cases did a true sensory neurosis exist.

Raynier has called attention to a symptom that he considers extremely important in the diagnosis of abdominal ptosis. This is the existence of a painful point in the left hypochondrium over the fourth rib at the level of the waistband. This corresponds to the splenic flexure of the colon, and pain is the result of temporary obstruction in the bowel due to kinking.

The early observers, especially Virchow and Glenard, claim that splanchnoptosis is a frequent cause of gastric and intestinal neurosis. Many later observers state that it plays an important part in the origin of neurasthenia.

Fleiner says that the anomalies of the position of the stomach are as often associated with nervous disturbances as those of the uterus. However, a displaced uterus alone cannot cause neurasthenia, and in either case a functional weakness of the nervous system must be assumed.

That neurasthenia and gastroptosis are not interdependent is shown by the fact that gastroptosis may exist without disturbance of the nervous system. When the relative frequency of gastroptosis in woman is considered there is no wonder that it is so often associated with functional nervous disorders. In men, Beall found that in half his cases gastroptosis was without nervous symptoms.

Meinert's theory that gastroptosis is the sole cause of chlorosis has not been supported by the other observers.

Kelling states that there is an error in Meinert's observations, arising from his employment of the carbon dioxide method exclusively, and that when he (Kelling) examined the same series

of cases by air inflation he failed to discover downward displacement in several, although Meinert contends that it was constantly present. It is certain, a displacement of the stomach can occur without chlorosis. In thirteen of my own cases but two were chlorotic, seven showed slight secondary anemia, while in four the hemoglobin was normal.

Treatment—Tight lacing and the hanging of heavy clothing from the waist-band should be absolutely forbidden. I have been accustomed to recommend any of the health corsets that do not compress the waist-band, and that have an arrangement by which the weight of the clothing is supported from the shoulders. After pregnancy or operation upon the abdomen corsets should not be worn too soon.

The conduct of the patient's life should be rigidly scrutinized and corrected. Rest for at least an hour after meals, flat upon the back with the clothing loosened, is an extremely useful measure. It acts, of course, by giving the stomach an opportunity to force the food into the duodenum without undue effort. These patients should not take, and, indeed, do not desire, large amounts of food at any one time, and the diet should be carefully regulated in this direction. In bad cases small and frequently repeated meals are better tolerated.

The diet should be easily digestible and suited to the condition of the gastric secretions, and should be so arranged that the food may be rapidly rendered fluid, and so easily discharged into the duodenum. Any stated diet cannot well be given, but the character of the food must depend upon the amount of hydrochloric acid secreted, and also upon the presence or absence of dilatation. A milk diet is usually not well borne.

Two measures must be insisted upon :

1. Not too large amounts of food at one time.
2. A period of rest after eating.

Lavage is not required unless a considerable amount of dilatation or retention demands it.

The stomach must be held in place by a belt or abdominal bandage so arranged as to exert pressure from below upward and backward. I have found that the ordinary elastic abdominal supporter is best for the purpose, but in my experience the simple binder has rarely been enough to properly replace the stomach.

Two additional measures are to be employed, the first of which absolutely necessary :

1. The lower edge of the belt must be firmly held against the pubes by perineal bands. These should be made of soft material, and are well tolerated. Thus a firm support is afforded for the upward pressure, which it is impossible to obtain satisfactorily without them, as the belt slips up and it is easily displaced.

2. An addition to the apparatus which is often needed is one or more pads, which should be flat and rectangular in shape and from three-quarters to one and three-quarters inches thick, according to the need of the individual cases. The pads are to be placed so as to exert upward pressure upon that part of the stomach that is too low. When this displacement is vertical or subvertical I usually order one immediately below the point where the examination has shown the displaced pylorus to be. In total descent it is better to employ two smaller pads placed parallel to and a little above Poupart's ligament. I have rarely seen satisfactory restoration of the stomach to its normal position without the use of these pads. In the cases in which lack of fat causes the lower abdomen to be very flat, it is very hard to exert sufficient upward pressure by the belt alone, and in such persons the pads are indispensable. The apparatus is never considered satisfactory until the stomach has been inflated with the belt in position and the organ shown to be in its place, or approximately so. The belt should be snugly fitted and worn fairly tight around the hips, while the upper border should be loose. If the situation of the pad and the fitting of the belt is satisfactory, I have never found that the amount of pressure has had to be increased. The relief afforded has almost invariably been instant and decided, with disappearance of the symptoms of motor insufficiency. Still, I have never seen a case in which prolonged use of the support produced a cure in the sense of permanently fixing the stomach into place. It can only aid the stomach wall to recover itself and re-establish its compensation by removing a link in the vicious circle. The weakness of the abdominal walls may be combatted by electricity or massage.

Various operations have been performed for the relief of splanchnoptosis and relaxed abdominal walls. The excellent paper of Stengel and Beyea deals extensively with the literature of the subject. The procedures have consisted of gastrorrhaphy, or stitching the reflection of the peritoneum round the lesser curvature to the abdominal wall (Duret, Byron, Davis, Roosing); a

combined gastrorrhaphy and gastroplication, or reducing the dilatation of the pyloric end by removing a diamond-shaped piece of the stomach wall (Terrier and Hartman); stitching a floating liver into place (Treves); and reducing the volume of abdominal cavity by removing a V-shaped piece from the abdominal wall (Hamelcart).

The operation described by Stengel and Beyea, and employed by them in a case of subvertical gastropotosis with marked benefit to the patient, continuing as long as she was under observation for a period of eleven months, consists in shortening the gastro-hepatic omentum by a series of ligatures. Since the publication of their article Blecher has reported four cases of gastropotosis, and one of enteropotosis, treated by Bier in practically the same manner, with very good results.

The operation recently recommended by Webster consists in the excision of that portion of the connective tissues lying between the recti muscles, which by its weakness and stretching has so thinned the abdominal walls that they are no longer able to lend support to the abdominal viscera. The muscles are then stitched together. A strip of skin and fat is cut away from the side of the wound before it is closed. Webster has operated upon fifty-one cases, and states that the results have been most satisfactory. Both Blecher and Webster insist upon a prolonged after-treatment of rest, massage, and abdominal support as extremely important.

It is impossible as yet, to say whether operative measures will give permanent relief in these cases. The testimony of the last three authorities offers much hope that such must be the case. However, the conditions producing gastropotosis are so various, affect so many tissues, and have their origin in so many causes, that one may well be cautious in advising operation in any but those cases in which it has been definitely shown that medical treatment is of no avail. Indeed, Blecher urges that operation is desirable only when a prolonged rest cure and the use of abdominal support have proved to be of no benefit, when the ptosis is extreme, or when for social reasons the patient is unable to afford time or money, for a more conservative treatment.

It is to be hoped that the methods suggested will prove to be the rational treatment for ptosis of the abdominal organs, but until such a time it is the writer's intention to advise operation

only in cases showing symptoms directly traceable to peritoneal adhesions, or in those not benefited by or not amenable to more conservative measures. When the trouble is aggravated by a relaxed pelvic floor, this should, of course, be remedied, and when there is much separation of the recti it is hard to see how relief can be obtained without the operation recommended by Webster.

Permanent restoration of the stomach to its normal position by non-operative measures may occur, according to Meinert and Riegel, but it must be rare, and it has not been the good fortune of the writer to obtain such a result in any of the cases reported. Marked improvement and often complete and permanent disappearance of the symptoms of gastric motor insufficiency follows a course of appropriate treatment, especially when a mechanical support is supplied. This can best be explained by the assumption that the muscle of the stomach has grown strong enough to do the work required of it. Cases may exist absolutely without symptoms when there has been enough hypertrophy of the stomach muscle to establish perfect compensation. It is probable that in the cases of gastroptosis and chlorosis reported by Meinert, where all stomach symptoms disappeared upon the administration of iron, compensation was established as the blood returned to its normal condition.

The vicious circle which exists should be broken by replacing the stomach by mechanical means until its muscle can be so strengthened as to re-establish compensation. The cause should be removed if possible, and the conduct of life already alluded to must be insisted upon, besides the diet, regulation of the clothing, of the amount and character of the food, and rest after meals. The drug that appears to effect the stomach walls most advantageously is strychnine, which is best given in the form of *nux vomica* in ascending doses.

ACUTE GASTRITIS.

BY WM. HENRY, M.D., HARMON, ILL.

There are several varieties of this disease, being an acute disorder of the stomach, there being great depression and prostration, with anorexia, nausea and vomiting in severe cases, pain after taking food, depending on an inflammatory condition of the mucous membrane. The real nature of the malady has been involved in much obscurity from the variety of the affections confounded under the title, including the specific fever on the one hand, and on the other specific softening, ulcer and cancer of the stomach. Acute typical gastritis, unless when caused by acrid poisons, is a comparatively rare affection, and equally so is the disease corresponding to Cullen's gastritis phlegmonodea when suppurative action takes place in the submucous tissues. Its milder form corresponds to the catarrhal affections of other mucous membranes.

Etiology.—The disease is common at all ages and in both sexes. It is said to have been observed in the fetus. It affects infants at the time of dentition. It is easily excited by food that irritates the stomach. A weakened condition of the general system or the stomach, which diminishes the secretion of the gastric juice, are causes of inflammatory irritation. Among the many predisposing causes are general atony, lack of the digestive power in the stomach, or a diminished amount of gastric juice. Similar influence has been attributed to the effects of inanition or starvation, owing to the observations of Hunter and Blundell, where the stomach in such a condition has been softened after death.

Andral also met with ulcerations, and other writers have mentioned that nausea and vomiting have been observed under these circumstances. As exciting causes must be mentioned irritation of all kinds, including those whose action is purely mechanical; by the use of mineral poisons and vegetable acrid poisons; arsenic, tartar emetic, mustard, ipecacuanha, when used as emetics. Among other causes may be food—such as decomposing meat, vegetables, shell-fish. Drinking largely of cold water when the body has been heated is mentioned as a cause of catarrh of the stomach; sudden changes of temperature have had similar influence attributed to them. Sydenham describes in the years 1669-70-71-72, as coincident with dysentery and following an epidemic of chol-

era, a fever setting in with griping and headache, a moist tongue with a thick fur and apthæ, cured in six days by purging and low diet. Barris remarked that during the cholera epidemic in 1832 affections of the stomach were very common.

During some epidemics of typhoid fever gastro-intestinal catarrh is often very prevalent. Inflammation of the stomach has also been observed to follow the retrocession of gout and rheumatism.

Symptoms of Gastritis.—They may be generally considered under the category: Uneasiness; distress or pain in the epigastrium; anorexia, more or less complete; vomiting; thirst; general malaise; general prostration; headache; febrile reaction of more or less intensity; constipation in some cases, diarrhea in others. Beaumont's observations have shown that in slighter cases of this nature local uneasiness may be absent, and the disorder of the stomach may only be revealed by general malaise, accompanied with slight headache. Acute indigestion may assume various degrees of severity, according to its cause or the previous health of the patient.

I remember a case which I attended in 1871—a lady over fifty years old; she had several attacks, very severe; the pulse became very rapid at the pit of the stomach—there was a pulsation like the heart; she would break out into cold sweats all over the body; the extremities became cold and clammy—almost like death; part of the time she seemed to be in an unconscious condition. I met in consultation a physician from Marshalltown Iowa. He pronounced the pulsation in the epigastrium aneurism of the abdominal aorta; but I differed with him, and said that it was gastritis, which it proved to be. I have treated several cases of this disease. In nearly every case I have found habitual constipation. There is usually acute epigastric pain, though some remarkable exceptions have been observed in this respect by Dr. Habershon, even in cases where corrosive poisons have been taken. Its characteristics are burning and lancinating. It often extends into the back when the affection is severe. It is not relieved by vomiting, and is increased by pressure over the epigastric region. In severe cases it is often accompanied by spasm and rigidity of the abdominal muscles. The face is pale and sunken; the voice weak or extinguished; hiccough is sometimes a very painful symptom. Death may come with collapse.

In these cases the liver may be affected, causing a jaundiced condition. Often with the vomited matter there will in some cases be large quantities of bile; the organ, with the stomach, may be highly congested, even enlarged. In some cases there is what the patient calls a burning sensation in his stomach. In the cases of drunkards who drink to excess, are troubled with gastritis in a more or less violent form, caused by the irritation of the spirits upon the mucous membrane when confined there for some time, as given by those who have made many post-mortem examinations on those who have died with delirium tremens, the stomach was found in a highly congested condition; in some cases there was ulceration caused by the irritation.

The pathology as described by Beaumont and the appearances given in his own words: "There are sometimes found in the internal coat of the stomach eruptions or deep-red pimples, not numerous, but distributed here and there upon the villous membrane, rising above the surface of the mucous coat. These are at first sharp-pointed and red, but frequently become filled with white, purulent matter; at other times irregular, circumscribed red patches, varying in size and extent from half an inch to an inch and a half in circumference, are found on the internal coat. When the inflammation is very severe the inner coat of the stomach is dry and does not secrete any gastric juice. Sometimes the gastric fluids are mixed with thick, ropy mucus and considerable mucopurulent matter slightly tinged with blood, resembling some discharges from the bowels in cases of chronic dysentery. The breath in some of these cases has a foul odor." Andral adds that when death takes place during an attack of indigestion hyperemia of the stomach is generally found.

The treatment in these cases should be something of a mild and soothing nature. In most of these cases there is palpitation of the heart through sympathy from the stomach. The diet should be very light, yet nutritious. The palpitation of the heart is so severe in some cases that physicians have pronounced it heart disease. I have in some cases resorted to digitalis as a heart-quieter; then I gave large doses of bismuth subnitrate. After the inflammation had subsided, I gave nitromuriatic acid, well diluted, as a digester of food for some time. I have scarcely ever met a case that did not yield to this line of treatment. I have seen nitrate of silver recommended,

but do not like it. Many other remedies have been recommended, but some of them do more harm than they do good. Some have given purgatives to carry off the irritating matter from the alimentary canal. One writer says that they have been used since the days of Hippocrates. Counter-irritation is also used, and the effect is good in many, drawing the inflammation to the surface and relieving the internal congestion.

My way has been to use something mild. I have found the water drank off of the elm bark to be very soothing to the inflamed surface of the mucous membrane. It, in connection with the bismuth, does excellent work, and has given excellent results in my hands. Both are soothing and non-irritating.

Tuberculosis Theory Tested.—Dr. George D. Barney, a physician of Brooklyn, with the assistance of a young woman who volunteered to become the subject of an experiment, has, he says, started out to demonstrate the truth or falsity of Prof. Koch's theory that tuberculosis germs cannot be communicated from a cow to a human being. His statements have been called to the attention of the Brooklyn office of the Health Department, which will investigate his assertion that he has injected tuberculosis germs into the young woman's neck. The matter will be laid before the counsel of the Health Board, and if he shall so advise steps will be taken to bring the matter before the Kings County district attorney, if it is found that Dr. Barney has done as asserted. According to the statement of the physician, the young woman, who was under treatment for some minor ailment, volunteered to permit him to inject the bacteria from the cow into her neck. The doctor describes her as an educated woman, whose parents are wealthy, and who had no other motive in offering herself as a possible sacrifice on the altar of science than the good of humanity. The operation, he says, was performed Saturday evening, Nov. 9th, the culture from the cow being placed under the skin on each side of the neck, just above the clavicle. He said no effects had yet appeared. The cow, which was imported from Canada, had shown typical signs of tuberculosis after having been inoculated with human tubercle bacilli.—*Phila. Med. Jour.*

THE CURE OF TUBERCULOSIS AND THE DISCOVERY OF A BASIC CRYSTALLIZABLE PROTEIN.

BY A. D. BARR, M.D., CAVE CITY, ARK.

I desire to briefly call attention to the discovery of a new crystallizable basic protein, derived from protoplasm, and its effect in tuberculosis. Protoplasm is a very unstable chemical compound, and when non-living readily undergoes decomposition, resulting in, besides albumen, glycogen, lecithin, salts and water.

I have found that if protoplasm is slowly decomposed in a weak acid solution, and kept free from putrefactive bacteria, instead of the production of glycogen, lecithin, etc., a crystallizable albuminoid compound is produced which is soluble in water and is permanent under ordinary conditions. If it be raised to a temperature of 212° F. it is completely changed from its crystalline form, and with the loss of its crystalline form it undergoes decomposition and no longer possesses basic properties, though it will still respond to some tests for albuminoids. It is a volatile base formed during decomposition of protoplasm, united to a protein radical.

Interesting as this may be from a chemical point of view, it is of vastly more importance from a therapeutical standpoint, as it will beyond any doubt arrest and completely cure tuberculosis, in almost every instance, if treatment is begun before the formation of cavities. Even after the formation of cavities I have seen complete recovery. To fully appreciate the facts one must see the results, as the effect of this crystalline albuminoid on the system of a tuberculous person is truly marvelous.

I am fully aware of the fact that this will be received with doubt and unbelief by many of the profession, but this is no more than one would expect, as almost every discovery, without exception, has met with the same reception. I can slightly change the exclamation of the astronomer, and say: God has waited six thousand years for an observer; I can wait one hundred for a believer.

I have now been studying and using this remedy in tuberculosis for a number of years, and will append the results in some cases.

CASE 1.—Ida C., female, married, mother of five children, aged about 30. Family history of tuberculosis.

First seen in December, 1899. Had been going down in

health for over a year. Appetite very poor, and for the previous four months had severe cough and expectorated freely; especially in the early part of the day. Had night sweats, and rigors every eight or ten days.

Menstruation suppressed for several months. When I first saw her she was confined to bed over half the time. Temperature about 102° F.

Physical examination showed tubercular deposits in apices of lungs.

The apex of right lung was breaking down, forming a cavity.

Began treatment with basic protein December 20, 1899.

Improvement was noticeable in five days, and in two weeks she was out of bed all the day, and was not confined in bed any more.

Menses returned, and in about three and one-half months she became pregnant, and at full term was delivered of a healthy child.

In four months from the time treatment was begun physical examination showed the lungs normal, with complete obliteration of cavity.

In fact she had returned to complete health, which she has enjoyed ever since.

CASE 2.—V. D. J., male, married, aged about 33. Health had been declining for about one year. Expectoration profuse of a morning.

Temperature elevated at times. Considerably emaciated. Physical examination showed tubercular deposit in apices of lungs.

Began treatment with basic protein October 13, 1901.

January 9, 1902: Physical examination shows lungs normal; strength regained; more fleshy than he ever was in his life.

CASE 3.—Mrs. F., married, mother of three children, age 35.

Her present sickness began two years ago, and was preceded by a severe attack of influenza. Has had several hemorrhages from the lungs. Cough and expectoration severe in the early part of the day.

Physical examination revealed tuberculosis of apices of the lungs.

Began treatment with basic protein November 12, 1901. Recovery has been steady and uninterrupted. January 11th she is in better health than she has been for two years. Physical ex-

amination shows the lungs to be clearing up, in fact almost normal.

CASE 4.—E. E., female, single, age 23. Duration of disease two years, preceded by a severe attack of influenza. Severe cough and profuse expectoration, especially of a morning. Had had rise of temperature for several months. Greatly emaciated and confined to bed part of every day.

Began treatment November 24, 1901, with basic protein.

January 11, 1902: Temperature normal. Cough and expectoration greatly decreased; gained in flesh and strength. Lungs clearing up. While she is not completely recovered, she has reached the stage where recovery is imminent.

CASE 5.—J. M., male, age 34. Tuberculosis of apex of right lung, with slight involvement of left. Duration of disease two years.

Predisposing cause, measles. Not confined to bed, but has a rise of temperature for days at a time. Lost considerable flesh. Expectoration and cough well marked of a morning.

November 24, 1901, began treatment with basic protein.

January 11, 1902: Lungs almost clear, with every other symptom of returning health.

Jonathan Hutchinson, F.R.S., General Secretary of the New Sydenham Society, has requested Messrs. P. Blakiston's Son & Co., of Philadelphia, the American agents of the Society, to announce the publication of "An Atlas of Clinical Medicine, Surgery and Pathology," selected and arranged with the design to afford, in as complete a manner as possible, aids to diagnosis in all departments of practice. It is proposed to complete the work in five years, in fasciculi form, eight to ten plates issued every three months in connection with the regular publications of the Society. The New Sydenham Society was established in 1858, with the object of publishing essays, monographs and translations of works which could not be otherwise issued. The list of publications numbers upward of 170 volumes of the great-scientific value. An effort is now being made to increase the membership in order to extend its work.

THE TREATMENT OF GONORRHEA IN WOMEN.

BY EUGENE C. UNDERWOOD, M.D.

Surgeon B. & O. S. W. R. R.; Surgeon K. & I. B. Co., etc., Louisville, Ky.

In view of our present knowledge of the disease, gonorrhea in females is one of the most important factors in the production of grave conditions which we have to encounter. If all the distress which is encompassed in salpingitis, stricture, chronic cystitis and other results of gonorrheal infection were tabulated I think we should be surprised at the importance of gonorrhea as a factor in the production of serious affections.

If the writer points out a treatment which is capable of bringing about complete resolution in these cases he will have contributed something toward the extinction of the disease. Many women go on for years with chronic gonorrhea and infect men in great numbers. When we are called to see a patient with acute gonorrhea we should insist on the patient keeping her bed until the first stage has disappeared. If there is much fever we can control this with acetanilid.

To relieve the pain incident upon urination we should have the patient take acetate of potassium with camphor water every three hours. If there is great restlessness and pain, as there often is, nothing will be so good as morphine often enough to keep the patient quiet.

Hot cloths applied over the region of the bladder often give a great deal of comfort.

This course should be persevered in until the acute stage has passed, then we can enter upon such treatment as will hasten resolution.

If we can get our patient to follow our directions we shall have little trouble in securing good results.

The patient's vagina should be flushed out with water as hot as can be borne.

After this the vagina should be thoroughly injected with a solution containing one part of hydrozone and two parts of pure water. This should be repeated four times daily until the discharge has materially lessened, and then the injections can be made twice a day, night and morning.

When there is but little discharge it is best to give only one flushing of the vagina with hot water, and one thorough injection of hydrozone at night.

I make this the last thing on going to bed.

I find it altogether useless to give copaiba or other internal drugs when this treatment is employed.

The hydrozone is the best destroyer of the gonococcus known, and the results are very prompt.

If the patient will follow our instructions we can attain a cure in ten days or two weeks easily.

A. B. L. —, aged 22, a young prostitute, sent for me and on my arrival I found her suffering with acute gonorrhea. I treated her for the acute period on the principles already described, and she passed this stage in comparative comfort.

I began to give the hydrozone injections after this stage, and the patient being intelligent and tractable followed my instructions, and was entirely well in two weeks.

A. L. S. —, aged 35, the wife of a barber, came to my office for treatment of profuse leucorrhea.

Careful inquiry led me to believe that she had a pure case of gonorrhea, and microscopical examination demonstrated the truth of my suspicion.

I had her use the hot water and hydrozone injections as already described, and this patient was fully well in twenty days from the inception of the treatment.

This patient would have gotten well sooner had she begun treatment earlier, or had she been in a position more favorable to the carrying out of the treatment.

Mrs. A. I. L. —, became infected with gonorrhea from her husband, but did not apply for treatment for three weeks after it had begun. She now had a profuse discharge with considerable excoriation of the vagina and labia.

She was treated in the same way as the other patients and made a recovery, which occupied only two weeks.

I could recount other cases, but this would not serve any good purpose. I wish, however, to insist that the profession give this treatment a trial.

THE TREATMENT OF AMENORRHEA, WITH REPORTS OF CASES.

BY MILTON P. CREEL, M.D.,

Member American Medical Association; Member Mississippi Valley Medical Association; Member Tri-State Medical Association; Member Kentucky State Medical Society; Secretary Muhlenberg County Board of Health; Referee for Kentucky State Board of Health; Member U. S. Board Pension Examiners; Surgeon L. C. Railway; Surgeon L. & N. R. R.; Member National Association Railway Surgeons.

The term amenorrhea is used to signify the failure of the menstrual flow to appear at the regular time, or the diminution of the quantity of menstrual blood at the catamenial periods.

The causes of amenorrhea are both physiological and pathological. The physiological causes are of course pregnancy, lactation and the menopause. The pathological causes comprise a variety of diseases and disease influences.

Taking cold at the time of the menstrual period and severe mental shock are causes. It is a consequential affection in the course of many diseases which lower the general health of the patient. Among these are to be mentioned tuberculosis, Bright's disease, diabetes, syphilis, scrofula, anemia, chlorosis and other affections. Obesity, high living, severe and prolonged nervous strain, over-study, are all causes of amenorrhea. Among the causes, too, must not be omitted stenosis and imperfect formation of the necessary organs. It will be found that some women menstruate vicariously, having monthly hemorrhages from the nose, nipples, ear, or some other organ.

After this general statement of the causes of amenorrhea, we may take up the treatment. The treatment of amenorrhea very naturally divides itself into two series of indications. The first will concern us with instituting such measures as will tend to correct any constitutional or local cause present. The second indication comprises the administration of such a remedy as will stimulate uterine circulation and establish vascular congestion, with contractibility of the muscular fibres of the uterus.

When we find the patient suffering from anemia it is manifestly our duty to begin at once with the administration of an eligible preparation of iron, such as ferrum sanguinis.

When the patient has tuberculosis, scrofula or any other disease which greatly lowers the vital stamina, we find it impossible to make favorable progress without such anti-neurasthenic reme-

dies as phosphoglycerate of lime (Chapoteaut), which tends to repair the tissue waste, which in these affections is vastly out of proportion.

In a word, all diseases co-existent, when the patient applies for treatment for amenorrhea, must be treated upon a plan which most promises a correction.

When there is atresia of the vagina, stenosis of the uterus, or other causes of this character present, surgical procedures alone are to be resorted to with hope of success.

It matters little whether we are treating these patients for some constitutional disease, as the cause of amenorrhea, whether the attack is a simple one, as taking cold or over-study, shock, or causes of that nature, we shall not have the best results unless we give our patient a remedy which fulfills the second indication for treatment—that of stimulating uterine contraction and determining vascularity, for two or three days before the time when we may expect the menses to appear.

In carrying out this indication I have never employed a remedy so efficient as apioline. It should be given in doses of two capsules at meal time, and on going to bed, for three days before the expected menstrual period. The administration of apioline in this manner adds to the efficacy of other remedies, in that it causes healthy normal circulation in the uterus, and thus tends to establish the function of menstruation. I have treated a number of cases of amenorrhea among school girls, and have found it unnecessary to give any other remedy than this. Below I give in outline the clinical histories of several cases taken at random from my notes.

CASE 1.—This lady, aged 27, applied for treatment of amenorrhea, and was found to be anemic, caused by an attack of malarial fever, from which she had never fully recovered. She was put on iron and quinine for six weeks. Three days before the menstrual period she began with apioline capsules, taking one at meals and two on going to bed. She menstruated freely and without pain, and followed out the treatment the following month. The third month her menses appeared without any medicine, she having fully recovered in all respects.

CASE 2.—This patient was a young woman who had been living in town only two months. She was not anemic, and I could attribute her amenorrhea to nothing else than change in the con-

ditions of her life. She had not menstruated for two months and was nervous and melancholy. I put her on Chapoteaut's apioline, two capsules four times daily. Menses came on freely, relieving her of her headaches, melancholy and extreme nervousness. She has not now in six months had any symptoms of amenorrhea.

CASE 3.—This lady was 40 years of age and had missed her menses for three months. I did not think this due to the menopause but to the lowered state of her health, caused by subacute bronchitis. She was put on cod liver oil and other remedies, which improved her general health. She took Chapoteaut's apioline capsules every month. At the end of the third month her general health was restored and the menses came on monthly.

CASE 4.—This patient, a young girl who worked as a cook, had not menstruated for three months. This was due to anemia following a retarded recovery from influenza. Other remedies for anemia, plus regular doses of Chapoteaut's apioline capsules being exhibited, she made a speedy recovery.

CASE 5.—This patient was a girl of 14 years of age. She was well nourished but as yet her menses were not free and full. With apioline capsules alone, her menses came on freely, and she has been in good health since.

The Diazo-Reaction in Typhoid Fever. — Sacquepee (*Archives Générales de Médecine*, August, 1901) records his results of a study of the diazo-reaction in twenty-four cases of typhoid fever. Throughout the whole course of the disease he finds that this reaction is nearly constant in this disease, and commonly appears some days before the temperature reaches its highest point. The distinctness of the reaction follows the temperature curve. The disappearance of the reaction is followed by a fall in temperature, but if the fall is sudden and early it is a bad prognostic sign; and if it persist for some time after the temperature has fallen it often points to some complication.

THE SHOCK OF INTRA-ABDOMINAL OPERATIONS; ITS ETIOLOGY, PROPHYLAXIS AND TREATMENT.*

BY LEWIS S. MCMURTRY, A.M., M.D., LOUISVILLE, KY.†

Barring exceptional and complicated cases, the causes of death after intra-abdominal operations are three: shock, hemorrhage, and septic infection. The discovery of the relations of micro-organisms to septic processes and the perfection of the modern aseptic surgical technique have practically overcome the last of these, so that in the hands of the modern abdominal surgeon it may be eliminated from the list. With the care given to hemostasis, in which the Trendelenburg position is a valuable aid, immediate and post-operative hemorrhage should be a rare cause of death. At any rate, our knowledge of its serious import and our means for its control have reached a degree of accuracy and efficiency near to perfection. It is quite different, however, in relation to shock, which is still a potent factor of mortality, and regarding the nature, etiology and pathology of which we know little more now than when the subject was treated by Travers and Pirogoff. Clinical observation and experimental investigation have yielded only meagre results in adding to our knowledge of the nature and mechanism of traumatic shock. This is a common complication of wounds and injuries, and must remain a subject of solicitous interest to the general and special surgeon until its nature, etiology, prevention and therapy are more clearly comprehended.

Shock is an inhibition of the vital functions, marked by vasomotor paralysis. Its manifestations are through the nervous system, and these relate especially to depressed and impaired action of the circulatory organs. It is evidently a neurosis, in which there is altered function of the nerve centres, with profound disturbance in the sympathetic nervous system. It varies in intensity from an evanescent and slight disturbance of nervous equili-

*Read by invitation before the Philadelphia County Medical Society, Dec. 18, 1901.

†Dr. McMurtry prefaced his paper by a very graceful tribute to the influence of the medical profession in Philadelphia upon the medical thought and practice of America, and by the following introductory: "I have no new discovery to offer, no new light with which to illuminate a trite subject. It is rather the purpose of my paper to recall to mind certain practical facts in relation to a subject that is omnipresent with surgeons, rather than to report the results of any original investigations. Being a busy surgeon myself, constantly working in the operating room, I have not had time nor the opportunity for experimental research or for the physiologic investigation of this subject that I would desire. I, therefore, present rather the thoughts I have from the standpoint of the practical surgeon."

brum to profound general depression and rapid dissolution. It is characterized by muscular relaxation, diminished cardiac force, lessened arterial tension, feeble respiration, arrest of glandular activity, and mental lethargy often verging into delirium. The symptoms of shock, when pronounced, present a striking clinical picture. The advent may be sudden, and the symptoms are those of the most profound general depression. The pulse becomes rapid and feeble, the surface of the body is pallid and bathed in cold perspiration, the lips bloodless, the features pinched, and eyelids drooping. The respiration is feeble and irregular, and the temperature subnormal. The special senses are blunted, the mind lethargic and verging into unconsciousness. The secretory and excretory functions are in abeyance. These symptoms in the aggregate are usually of short duration. If they become more intense they speedily end in death; if the recuperative powers of the system triumph, the pulse and respiration improve, the heart acts with improved force and rhythm, the color returns to the skin, normal temperature is restored, the features regain normal appearance, and the mind resumes its sway.

In abdominal and pelvic surgery shock occurs during or immediately after operation. The terms secondary and delayed shock have tended to confusion in the study of the subject. Undoubtedly hemorrhage, acute sepsis and fat embolism have been misinterpreted in this connection. These complications of wounds and injuries were formerly classified as delayed or secondary shock, terms most misleading. Modern surgeons no longer recognize such conditions as delayed or secondary shock.

In abdominal operations it is important to differentiate shock from chloroform asphyxia. In the latter condition the depression is sudden with no warning symptoms; the pupils dilate; the respirations become irregular and cease; the pulse irregular, then ceases to beat at the wrist. When the anesthetic is discontinued, the patient suspended, and artificial respiration is induced, the pulse returns, and the alarming symptoms disappear. The less rapid accession of alarming symptoms and the lack of response to resuscitative treatment in shock will afford a basis of differentiation.

Sudden collapse from hemorrhage must also be differentiated from the nervous depression of shock. As a rule, the depression known as shock gradually appears during the late steps of the

operation; the collapse of hemorrhage is immediate, and an expert anesthetizer will readily discriminate between the two conditions. The acute anemia is concealed and persistent hemorrhage is less readily differentiated from shock than the active hemorrhage just mentioned. Immediately after operation, when the abdomen has been closed and the patient placed in bed, hemorrhage will present many symptoms in common with shock. Differentiation here is most difficult. Indeed, many deaths resulting from concealed hemorrhage are attributed to shock. The pulse of hemorrhage is characterized by increasing frequency and diminishing force and volume. The face, in hemorrhage, has an anxious expression, but intelligent; the respiration is quick and sighing, and there is restlessness. The most difficult cases for diagnosis are those in which shock and hemorrhage jointly produce the depression. Should the symptoms of shock recur after the patient has partially rallied the existence of hemorrhage is almost assured. Such cases are illustrations of so-called secondary shock.

Acute septic infection may be confused with shock. These cases were quite common in abdominal surgery before the era of asepsis and during the period of imperfect asepsis. With a sub-normal surface temperature, the thermometer in the rectum or vagina will record a marked elevation above normal. The existence of conditions of possible sepsis will aid in the differentiation.

Emboli of various kinds may produce symptoms analogous to shock. Warren has called attention to the emboli of fat which occur in acute suppurations in fatty tissues, and which accumulate in the lungs, producing alarming symptoms and death.

The post-mortem disclosures in cases of death from shock, aside from the evidences of marked vascular disturbance are purely negative. Shock must be regarded as a neurosis from a pathological standpoint.

In the etiology of shock individual susceptibility plays an important part. The resistance to injury in the animal creation is in proportion to the development of the nervous system. The lowest in the scale of development possesses the greatest resistance to injuries of all kinds. A highly endowed nervous organization, whether acquired or hereditary, constitutes a predisposition to shock. The health of the individual is an important factor in

the etiology of shock. Debilitating diseases, insufficient and indifferent food, dissipated habits, care and mental anxiety, predispose to shock from slight injuries. In constitutions enfeebled by disease, especially when complicated by hemorrhage, operation will produce depression readily. This is especially manifest in cases of carcinoma. Repeated and long-continued hemorrhage likewise predisposes to shock, as illustrated in cases of uterine fibromata.

Dr. George W. Crile, of Cleveland, in a series of experimental investigations, has made a valuable contribution to the etiology of shock in abdominal operations.* These investigations are confirmed by practical experience. He found, in a series of experiments upon dogs, that shock is produced by opening the peritoneum; that simple exposure of the peritoneum to the atmosphere produced shock, the degree of shock varying inversely with the temperature of the air; the duration of operation and exposure was found to be an important factor of shock; manipulation of the peritoneum and enclosed organs induced symptoms of shock, increasing in intensity as the manipulations extended from the pelvis to the diaphragm; the same symptoms followed the disturbance of local splanchnic vasomotor areas and pressure upon the splanchnic veins, especially upon the vena cava.

These observations were made by means of the graphic method, whereby the alterations of the blood-pressure were recorded. Every experiment in the splanchnic area gave evidence that the dilatation of the vessels controlled by the splanchnic nerves was accompanied *pari passu* with the decline of pressure in the central and arterial circulatory apparatus. These nerves are vein nerves, and shock in operation on the splanchnic area is largely caused by the local disturbance of the vasomotor mechanism. The large splanchnic veins are engorged with blood in shock, and this we know is the result of impaired force of the heart's action; while the vasomotor mechanism plays an important rôle in shock, Crile's experiments show that this is not the whole cause. Clamping the thoracic aorta and splanchnic arteries did not prevent the symptoms and results of shock from injury to the intestines. It was also shown by Crile's observations that shock follows bloodless operations, thus disproving the assertion of some able clinicians that shock is but another name for hemor-

*The American Gynecological and Obstetrical Journal for March, 1898.

rhage. This important note, however, was confirmed by all experiments; "the less the insult to the tissue, the less the shock; the less the hemorrhage, the lighter the shock." The experimental investigations of Crile demonstrated throughout that hemorrhage, rude manipulation, peritoneal exposure, prolonged anesthesia, and loss of body heat are the most potent factors of shock after abdominal operations. These disclosures have long been recognized as clinical facts, and are confirmed by daily practical experience.

The prophylactic treatment of shock is most important. In all abdominal operations it should begin with the preparation of the patient for operation. While purgation, light diet, and increased elimination are essential features of preparatory treatment, such treatment should be very materially modified in the preparation of exhausted and debilitated patients as a preventive shock. Active purgation and fasting predispose to shock. In patients exhausted by hemorrhage or debilitated by disease purgation should be omitted, and systematic feeding with bland concentrated liquid food up to within a few hours of the operation should be observed.

It was formerly quite the routine practice with many surgeons to administer morphine or alcohol, or both combined, preparatory to operation, in order to prevent shock. There is little either in experimental deduction or clinical experience to commend this practice. Crile found that preliminary administration of both these agents did not act favorably upon the phenomena of shock. Alcohol is still used for this purpose by some surgeons, being administered in the form of brandy or whiskey, diluted with water by enema prior to operation. While increasing the heart's force and vigor for a limited time, physiological investigation has shown that this period is succeeded by a period of depression which is conducive to shock. My own experience with this agent as a preventive of shock has not impressed me favorably. Opium is a depressor of vital power, and its physiological effects upon the nervous system are in the direction of promoting and increasing shock. These facts are recognized clinically by abdominal surgeons. Normal saline solution by enema preparatory to operation is an agent of positive value. By increasing the venous pressure the output of the heart is increased and the contractions are stronger.

Both clinical experience and physiological experimentation attest the value of strychnia as a cardiac and vascular tonic, and therefore it is deservedly esteemed in practice as an agent of positive value in the prevention of shock. It should be administered in doses of $\frac{1}{40}$ grain every six or eight hours for several days prior to operation in all cases wherein shock is apprehended, and $\frac{1}{30}$ grain should be given hypodermically immediately preceding anesthesia.

From what has already been stated as to the reduction of body temperature in the mechanism of shock, it is apparent that the temperature of the operating-room and the conserving of body heat by warm clothing should receive consideration in the prevention of shock. The temperature of the operating-room should be 80° F.; the patient should be well wrapped in blankets, and bags of hot water placed within the folds of the blankets alongside the trunk and lower extremities. Contact of the skin with glass, tin, and other conductors of heat should be avoided.

It would be difficult to exaggerate the importance of care and skill in the administration of anesthetics, in relation to the prophylaxis of shock. Sulphuric ether is not so pronounced in its depressing effects upon the heart and vasomotor system as chloroform, and requires less care in its administration. Not only the amount, but the method of administering anesthetics is important. The least quantity that will produce and maintain moderate surgical anesthesia and the withdrawal of the drug at the earliest practicable moment in the final steps of the operation are essential points to be observed. Profound or prolonged anesthesia is *per se* a potent factor of shock.

Of all the causative factors of shock, none is so pronounced and potent as hemorrhage. In patients debilitated by disease and reduced by hemorrhage it is wonderful how slight a hemorrhage during operation will depress the patient's vitality. The effect upon the heart is immediate. It is this clinical fact which has led some able surgeons to declare that shock is but another name for hemorrhage. From the beginning to the end of the operative procedure this fact should be constantly in the operator's mind. All active bleeding, both arterial and venous, should be arrested by the application of clamp forceps. While manipulating within the abdomen and deep pelvis, mechanical interference with large venous trunks should be avoided. Oozing surfaces should be packed

with gauze pads wrung out of hot water, and constant attention devoted throughout the operation to arrest bleeding.

The experiments of Crile have demonstrated that a marked degree of shock is produced simply by opening the peritoneum and exposing the surface of that membrane to the atmosphere. Hence the shortest incision compatible with easy access and manipulation should be preferred. During the progress of the operation the visceral surface of the peritoneum should be protected with hot gauze pads, which will exclude atmospheric contact, preserve body heat and prevent surface evaporation.

The insult to the tissues, otherwise rude manipulation, is a potent and common cause of shock in abdominal operations. I know no one of the causes of shock which is so constantly disregarded as this. In no class of operations is a gentle touch more essential. Even when force must be applied, as in the separation of adhesions and enucleation of tumors, that force should be applied with due regard to the sensitive natures of the structures involved. Rude manipulation always shocks the patient, and much handling and stretching and twisting of structures covered by peritoneum can be avoided by care and manipulative skill—a skill to be cultivated by every surgeon who does this class of operations.

The duration of an operation bears a most conspicuous causative relation to shock. Long-continued anesthesia, carefully administered, of itself will produce shock. The element of time in relation to anesthesia, to the exposed field and to manipulative irritation, is of the greatest moment in this connection. Hence the mental concentration of the operator, his command of technical detail and manipulative skill, must play an important rôle in the prevention of shock.

Treatment. — The symptomatic indications for treatment in shock are to facilitate the cerebral circulation by position, using the Trendelenburg position on the operating-table and elevating the foot of the bed after operation. The heart must be strengthened by strychnine, administered hypodermically. Intravenous infusion of normal saline solution is indicated for reasons already given. The application of heat to the surface and the conservation of body-heat in every possible way are essential parts of treatment. Atropin is an agent of undoubted value in strengthening the heart. As the respiration is shallow and the blood in-

sufficiently furnished with oxygen, artificial respiration and the administration of oxygen gas are indicated. Diffusible stimulants per enema (brandy or whiskey, f3ij.; warm water, f3iv.) should be administered. In the effort to meet the issues presented there is a constant temptation to repeat medicine in large doses too frequently.

The Establishment of a State Sanatorium in Missouri for Tuberculous Persons.—Preamble and resolutions adopted by the Medical Society of City Hospital Alumni on Nov. 21, 1901:

WHEREAS, The provision by State government of sanatoriums for the reception and care of tuberculous persons has become an acknowledged necessity for the better protection of the public against tuberculosis in various forms; and,

WHEREAS, Several States already possess such sanatoriums while Missouri, although the fifth State in the Union in order of population, has taken no step toward providing for the establishment of such an institution; therefore, be it

Resolved, That the Medical Society of City Hospital Alumni recognize the urgent necessity for an adequate institution designed for the exclusive care and treatment, both hygienic and medical, of tuberculous persons in the State of Missouri, the said institution to be erected and maintained by the State government.

2. That this Society shall at once, by correspondence and otherwise, seek to enlist the active co-operation of other medical societies and bodies, and of the public press throughout Missouri to the end that a sanatorium, commensurate with the importance of the object sought, be authorized by legislative action, the same to be erected in some suitable location in the mountainous part of the State.

3. That copies of these resolutions be transmitted to all other medical societies in the State, to medical colleges, to the medical press and to the local daily press, to the Governor, and members of the General Assembly; and that a persistent agitation of this subject be maintained in order that public opinion may be so influenced as to secure favorable action by the next legislature toward the more effectual prevention and control by approved methods of one of the most destructive diseases to which mankind is liable.

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EDITORIAL.

SHOP.

It is a notorious fact that physicians are very much addicted to the habit of talking shop wherever they meet. Take, for instance, two or three physicians meeting one another, and after a few words on the current events of the day they lapse into "shop." Then begins the immediate formation of a small medical experience meeting, whereat cases are reported *ad nauseam*, and very often lead to heated discussions which the dignity of a medical society would not tolerate. This is no doubt due to the enthusiasm and interest which they feel in their profession. It matters not what the time or circumstance may be, the talk is always of the same character. A lay witness to such a matter is very much edified indeed by what he hears, and it is not an uncommon occurrence for such to characterize the speakers as brutes, unfeeling and ungenerous, as well as dangerous to the community. The utter *abandon* exhibited by physicians when

having such a talk is certainly admirable, but none but a cynic could thoroughly enjoy it unless himself a physician.

This habit of talking shop is not limited to the general practitioner or surgeon. In every specialty it is seen to exist and to be of a still more pronounced type, if that be possible. We certainly do not wish to decry "shop," for it is most certainly an admirable vehicle for the interchange of ideas, as well as for the dissemination of much knowledge. It exists in every profession, as well as in every trade, occupation and avocation, and is an index of the interest each individual has in his work. What we desire to deprecate is the tendency many medical men have of talking shop to laymen, who do not understand the subject and have no interest in it whatever. Those who pretend to have an interest listen more out of idle curiosity or amusement than from a real desire to learn something. Some there are who are positively annoyed by such attempts to impart knowledge that is not desired. We have witnessed the case of a nervous young lady regaled with the details of a complicated case of labor given in the most horripilating manner by an enthusiast who forgot to whom he was speaking.

Such conduct is certainly reprehensible and is due to the fact that physicians confine themselves too much to their profession and do not take excursions into the tempting fields of general literature. A physician sees and reads enough of the grewsome to desire and to indulge in a little mental relaxation now and then. It is not only eminently proper but a real necessity for him to read the latest magazine, review or novel occasionally, and the excuse of having no time may be easily disposed of by taking it. A mind continually occupied with the more serious aspects of life becomes dulled to all other things and falls into the rut of talking "shop" and knowing nothing else. The keener delights of intellectual amusement become a mere fable, a tradition, which had best be made a reality by indulging in the pleasure which they bring. Such reading makes an interesting talker, makes the individual more broad gauge and arms him socially in a manner which will make him not only a delightful acquisition to society but a better physician.

Some of our best physicians are not only averse to talking shop; but, whilst of the highest skill in their profession, they have become ornaments to literature, which they have adorned

with some of its brightest gems. Such men do not talk "shop." They will discuss medical topics in medical societies, write on medicine for medical publications, or contribute their share of medical works. The lighter topics and those generalities of conversation which make the burdens of life lighter and cast rays of sunshine upon all, are theirs, and they do not in the least detract from their skill and knowledge in medicine. As a medical body let us drop "shop" and take our true place in the great mass of humanity. Let us cultivate more care in speaking of purely medical subjects and only speak on them to those whose training has qualified them to understand of what we speak. In other words, let us leave "shop" to shop-keepers and politicians.

The Yellow Fever Expedition in Brazil.—The scientific expedition recently sent to Brazil from France for the study of yellow fever is now installed in Petropolis. Unfortunately there is at present no yellow fever in Brazil. But a few cases of the plague have broken out which are being studied instead. Dr. Salimbent, who stopped in Italy to study the transmission of malaria by mosquitoes, will soon leave for Brazil to join his colleagues, Drs. Marchoux and Simon. All three were sent out by the Pasteur Institute, Paris.—*Ex.*

Vaccination.—The Boston Board of Health has passed the following order:

WHEREAS, Smallpox has been prevalent to some extent in the city of Boston, and still continues to exist, although the number of cases has been much decreased, owing largely to the voluntary vaccination of the great majority of the inhabitants; and,

WHEREAS, It is necessary for the speedy extirpation of the disease, that all persons not protected by vaccination or revaccination should be vaccinated; and,

WHEREAS, In the opinion of this board, the public health and safety require the vaccination or revaccination of all the inhabitants of Boston; therefore, be it

ORDERED, That all the inhabitants of this city who have not been successfully vaccinated since Jan. 1, 1897, be vaccinated or revaccinated forthwith.—*Boston Med. and Surg. Jour.*

SOCIETY PROCEEDINGS.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, April 2, 1901.

JOSEPH COLLINS, M.D., President.

RECURRENT OCULOMOTOR PALSY.

Dr. William M. Leszynsky presented a woman, twenty-nine years of age, whom he had first seen four months ago. When six years old she had begun to have attacks of headache, confined to the right temporal and supraorbital regions, and invariably accompanied by vomiting. The attacks occurred every five or six weeks. At her twelfth year the customary paroxysm had been associated with ptosis of the right eye, from which she had recovered in two weeks, the migraine continuing to recur as before. The second attack of oculomotor paralysis had occurred in her nineteenth year, with the same pain and vomiting. There were partial ptosis, diplopia, and inability to look upward with the right eye. She had improved in three weeks, but the eye did not move upward as well as before for a few months, and then there had been complete recovery of motility. The third attack had occurred in her twenty-second year, and had been characterized by almost complete ptosis, outward deviation of the eye, and diplopia. She had been obliged to keep the eye covered for three months, but had recovered in about a year. The fourth attack had been two and a half years ago, and the fifth only three weeks ago. She now complained of the eye turning outward, and of her inability to look upward. The periodical headaches bore no relation to menstruation. Examination showed slight drooping of the right upper eyelid, paralysis of the superior rectus, and paresis of the inferior and internal recti. The right pupil is 5 mm. in diameter and rigid, while the left measures 3.5 mm. and reacts normally. Vision is normal in both eyes, and the fields and fundi are normal. She is anemic and neurasthenic. The family history was unimportant, and her ocular condition had practically remained unchanged since the first examination. The speaker said that the most interesting features were the comparative rarity of this type of oculomotor palsy and its pathology. Only two authentic cases of recurrent oculomotor palsy had been studied post-mortem—one by Richter, in 1887, and the other by Karpil, in 1895. In the former a fibro-chondroma existed in the course of the nerve trunk at the base of the skull, and sepa-

rated but did not destroy the nerve fibres. In the other case there was a neuro-fibroma of the motor oculi at the base. In many of the reported cases complete recovery had taken place, but in others the paralysis had gradually increased during the intervals, and had ultimately become permanent. Dr. Leszynsky said that he had seen four other cases. In the first there had been complete paralysis of the third nerve, with a clear history of accompanying migraine. Recovery had been spontaneous.

Dr. D. B. Sachs said that these cases were extremely rare, though he had been fortunate enough to see two in the past six months. One had been in a boy of four years, who within a year had had two distinct attacks of oculomotor paralysis of one eye. He had recovered in a few months from the first attack. The family history was entirely negative. He understood that improvement had followed the second attack. There had been apparently no migraine here.

Dr. Leonard Weber said that he had presented a case of this kind to the society twelve or more years ago. The man had oculomotor palsy on the right side. He had watched the case for a number of years. After about two years there had only been a little ptosis remaining. After a course of iodide the man had greatly improved, and had ultimately died of pulmonary tuberculosis.

Dr. B. Onuf said that he had presented such a case to the society one year ago. The patient had since been given iodide of potassium in increasing doses, and had moved to the country. The attacks had become shorter and less severe. He did not believe that there was always a lesion of the oculomotor alone. His own case was undoubtedly one of migraine.

Dr. Leszynsky said that a very novel theory had been brought forward regarding the paralysis occurring in connection with migraine. It had been assumed that there is an increased vascularity of the hemisphere during the attack of migraine, causing a disturbance of the function of the third nerve.

A CASE OF MALIGNANT TUMOR OF THE SHOULDER PERFORATING THE SPINAL CANAL.

Dr. Leonard Weber read this report and presented the specimen. The subject was a man of thirty-one, whom he had first seen in 1891. He had presented the usual symptoms of a recent syphilis, and had been treated for this, with improvement. In

1894 he had returned because of a perichondritis of the cartilaginous portion of the nasal septum. At this time a small movable tumor, the size of a cherry, was noted in the right shoulder. This was supposed to be gummatous. The tumor diminished under mixed treatment, but a small nodule remained. In June, 1900, the man had sought relief because of a hard, solid and almost immovable tumor of the shoulder, which he said had developed shortly after a blow on the shoulder received one year previously. No benefit had resulted from rapidly increasing doses of iodide or from the biniodide of mercury. Three months later a portion of the growth was submitted to microscopical examination, with the result that it was declared by two pathologists to be a round-cell sarcoma. An effort had then been made to remove the growth, but this had been found impracticable. Injections of arsenite of soda and carbolic acid had been given for a time, but without benefit. On December 3 he had been admitted to St. Mark's Hospital because of a suddenly developed paraplegia. Bed sores soon formed, and he became septic, and died on February 11, 1901, from exhaustion. The tumor and a portion of the spinal cord were removed post-mortem. The tumor was found to lead into the spinal canal. The cord symptoms in this case were due to hemorrhage and degenerative myelitis. As to whether the little tumor first felt in the shoulder was specific, the speaker said that this was probable, and added that the case emphasized the desirability of removing apparently innocent tumors at an early stage.

A CASE OF CEREBELLAR APOPLEXY WITH AUTOPSY.

Dr. Weber also made this report. The patient was a man, twenty-nine years old, living amid the most unsanitary surroundings. The urine had a specific gravity of 1024, and contained a slight trace of albumin and some hyaline and granular casts. There was no history of syphilis. He had been sick for about two months before coming under observation, on September 11th. There was constant headache, but no sensory or motor disturbances. The diagnosis seemed to lie between tumor, hemorrhage and abscess of the cerebellum. On account of the length of time he had been sick abscess seemed to be more probable than hemorrhage. He died in a few days, and at the autopsy the entire venous system was found engorged with blood. There was marked hypertrophy of the left side of the heart; no endarteritis of the arch of the aorta; both kidneys were slightly

enlarged, the cortex showing proliferation of connective tissue in patches, and presenting the gross appearance of interstitial nephritis. No opportunity was given for microscopical examination. In the substance of the right cerebellar hemisphere was an accumulation of both recent and old coagula, and the apoplectic focus had ruptured into the fourth ventricle. He had seen one case of cerebellar apoplexy in a girl of twenty-five years, who had an unsuspected and untreated syphilis.

A TUMOR OF THE OPTIC THALAMUS.

Dr. Joseph Fraenkel presented this specimen, which had been taken from a person whom he had shown to the society in January, 1898. At that time the boy had had the cardinal symptoms of brain tumor, and a paralysis of the face, which was very marked when there was any emotional disturbance. There had been no hemianopsia. The boy had been discharged from the Montefiore Home, and had done fairly well for two years and a half. When readmitted there had been very nearly the same symptoms as before, and in addition a much more marked unsteadiness of gait and a disposition to fall to the right side. Dr. Fraenkel said that he had been led to think it possible that the tumor was after all situated in the cerebellum. On removing the brain at autopsy a very old cyst was found on the fourth ventricle, the exact nature of which had not yet been determined. There was also a large tumor occupying the right optic thalamus.

SPINAL CORD SHOWING RESULT OF FRACTURE DISLOCATION OF THE CERVICAL SPINE.

Dr. Edward Fisher reported this case and presented the specimen. The patient was an acrobat, twenty years of age. While turning a summersault from the shoulders of a companion he had fallen a distance of about five feet and struck on his head. He was instantly paralyzed. When seen by the speaker that evening there had been complete anesthesia from below the nipple, extending down the arms to the armpit, and on the inner side of the arm and forearm, and taking in the ring and little fingers. There was complete loss of motion and paralysis of the bladder and rectum. The reflexes, superficial and deep, had been completely lost. Permission could not be obtained for operation until three days later, and in the meantime there had been a temperature range of 104° or 105° F. The operation had been done by Dr. B. F.

Curtis under cocain anesthesia, and the laminæ of the fifth, sixth and seventh vertebræ removed. No evidence of injury to the cord could be discovered. The man died three days later. The autopsy had revealed a fracture of the body of the seventh vertebra; no subdural hemorrhage; marked softening of the cord at the seventh cervical segment. There was very little gray matter left in the cord at that level, and there was very little evidence of hemorrhage into the cord proper. A very prominent symptom had been the extreme pain experienced along the course of the nerves. The classical distribution of the paralysis and the complete loss of reflexes were interesting features.

Dr. B. Sachs remarked that twenty years ago it had been pointed out that a very significant symptom of tumor of the optic thalamus was this peculiar facial palsy made visible by emotion.

Dr. Leszynsky said that he had seen recently a case of dislocation in the dorsal region, with loss of reflexes and paralysis below the seat of injury. An operation had been done, but death had followed. The autopsy had revealed a complete transverse destruction of the cord.

Dr. Fraenkel said that some time ago he had presented a paper to the society on this matter of the reflexes, and had continued to give a good deal of attention to this subject. He would assert that the skin reflexes are not lost in total destruction of the cross section of the cord, and the relation of the tendon reflexes to the skin reflexes should enable one to decide whether or not the cord has been completely destroyed in this manner. When the compression of the cord was sufficiently great to interfere functionally with conduction upward and downward, the tendon reflexes are lost while the plantar reflexes are exaggerated. When, however, there is structural disease of the entire cross section of the cord the plantar reflexes are also lost. This he considered a valuable point in the differential diagnosis. He had reported two cases with autopsies in which there had been loss of reflexes without total abolition of the conduction in the cord.

Dr. Leszynsky said that in the case he had just referred to all forms of reflexes had been abolished, both superficial and deep.

BRAIN FROM A CASE OF EPILEPSY OPERATED UPON.

Dr. H. L. Winter exhibited this specimen, which had been taken from a child of seven years. All of the head measurements were small; there was no paralysis of any of the muscles.

The child was imbecile and had epileptoid seizures, which appeared to be general. Dr. Stewart had operated upon the child at Bellevue Hospital. On reaching the brain a large cyst cavity had been found in the left hemisphere. The child died seven days later with high temperature. The hemisphere was found to have been nearly destroyed by the cyst, and the convolutions were not well marked. The interesting feature was the almost complete destruction of the hemisphere without any paralysis. The fibres of the medulla were found not to decussate as freely as usual.

ABSCESS OF THE BRAIN.

Dr. Joseph Collins presented this specimen. It had been impossible to make a localizing diagnosis. The patient was a man, twenty-seven years of age, a tailor by occupation. Two weeks before admission he had been suddenly seized with severe and more or less paroxysmal headache distributed over the whole head. The pain was almost intolerable for six days, and then he became dizzy and had projectile vomiting without nausea. There had been some whistling sound in the right ear. When seen by the speaker, four days after coming into the hospital, there had been double-choked disk, but no hemianopsia. There was no leucocytosis, although the hemoglobin percentage was 36. Apparently there was no impairment of hearing. The knee jerks were normal. There was no evidence of palsy or of spasm in any part of the body, and no symptoms referable to the special senses. The patient died four days later of exhaustion. The autopsy revealed the abscess situated in the right hemisphere, and involving particularly the posterior end of the inferior parietal lobe and of the superior parietal lobe. The cuneus itself was partly implicated. The tit-like extremity of the cuneous, it should be noted, was entirely intact on the side of the abscess cavity, and if the optic radiations are not cut across it would not be difficult to explain the absence of hemianopsia. A diagnosis had been made of abscess of the right superior parietal convolution.

Dr. Fisher said that both the superficial and deep reflexes had been absent in his case, and it was because of this that he had inferred that there was complete destruction of the cord. The operation had been undertaken to relieve the intense pain.

BOOK REVIEWS.

Progressive Medicine. A Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., assisted by H. R. M. LANDIS, M.D. Vol. IV. December, 1901. 8vo., pp. 409. Illustrated. [Philadelphia and New York: Lea Bros. & Co. 1901. Per annum, in four cloth-bound volumes, \$10.00.]

The present number of *Progressive Medicine* being the concluding one of the year, is, as is usual with this issue, the most valuable as well as most varied in its contents. The contributors do not merely give a digest of the progress made during the past year in their various departments, but make critical analyses and add much original matter of their own, thus enhancing the value of the entire work for its reader. The present volume is one more adapted to the needs of the general practitioner than the other, although it is difficult to imagine how a truly progressive physician could dispense with any. The words and thought of masters in any branch of medicine are always valuable and eagerly sought for, and they are always pregnant with ideas which are certain to be productive of good results.

The volume before us opens with a thorough critical review on Diseases of the Digestive Tract and allied organs by Dr. Max Einhorn. The stomach and intestines receive thorough attention, as well as the esophagus, liver, pancreas and peritoneum. The medical and surgical treatment of the pathologic conditions observed in these receive a full discussion as well as a critical consideration. That which will perhaps prove most interesting will be the matter given in relation to pancreatic diseases—a subject which has of late aroused much attention. So little of a definite character has been heretofore given that any contribution of worth is sure to arouse interest among the members of the medical profession. The surgical treatment of diseases of the liver is another subject of much interest given in this chapter; and we are treated to a good review of the latest advances made in connection with the ever-recurring subject of appendicitis. The subject of Genito-Urinary Diseases is treated in a masterly manner by Dr. William T. Belfield. Special attention is directed to the subject of general infection by the gonococcus, and this portion is deserving of more than ordinary attention. Tuberculosis of the genito-urinary organs also comes in for a large share of attention, which it certainly deserves. In this, practitioners will find much deserving their attention and of the highest importance so far as diagnosis and treatment are concerned.

Dr. Joseph C. Bloodgood has a particularly good article on Anesthetics, both general and local, in which he discusses the various methods and their relative advantages, more especially as regards their safety. As far as special cocainization is concerned,

whilst the contributor gives a thorough and exhaustive review of the subject, he considers it a method which should not be resorted to unless the contraindications to the other methods of anesthesia are so strong as to positively preclude their use. After disposing of this subject, he takes up that of wound treatment, infection, diabetic gangrene, and winds up with a very strong plea in favor of blood-examination in surgical cases. His discussion of the value of such a procedure is very valuable and full of good suggestions. Dr. John Rose Bradford's contribution in connection with the different pathological conditions of the kidneys is of more than ordinary value. This is the more so in connection with albuminuria, whose true position as a symptom is clearly noted, its various forms being set forth and clearly explained. He is equally explicit in regard to the varieties of uremia.

Physiology is considered by Dr. Albert P. Brubaker, who devotes quite some space to artificial parthogenesis or fertilization in annelids. After considering various other subjects in physiology, he takes up the glandular system, and in this discusses the various therapeutic effects of glandular extracts and their relative value. The nervous system and the effects of poisons and remedial measures upon it is also considered. So far as Hygiene is concerned, Dr. Henry B. Baker gives a most excellent review in regard to bovine and human tuberculosis. The dictum of Koch is not accepted as proven by this writer, but he intimates, in no doubtful terms, that it will still take years to firmly establish the question. An interesting portion of this article is that devoted to the question of how yellow fever is spread. We find no conclusion on this question beyond a quotation attributing the disease to mosquitoes. The volume concludes with a well constructed referendum on Practical Therapeutics by Dr. E. Q. Thornton. In this are to be found many practical hints of the utmost value to medical practitioners, and we only deplore the fact that this valuable collection appears but once a year.

We wish to remark, as a closing statement, that Progressive Medicine is not only a good work but an indispensable one to every medical man.

A Laboratory Guide to the Study of Qualitative Analysis.

By E. H. S. BAILEY, Ph.D. and HAMILTON P. CODY, A.B.
Fourth Edition. 12mo., pp. 234. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$1.25 net.

The authors of this most excellent guide have made its fourth edition a most valuable one and it is very timely in view of the immense strides which chemistry is making to-day. The book is rendered very interesting to the student by the fact that there is made a proper application of the theory of electrolytic dissociation and of the mass law. This is in addition to the instructions given in the mechanical methods of carrying out the various methods of analysis. The elaboration of the theories mentioned

as well as others is of the greatest use to the student who heretofore has been puzzled by not observing the same reactions in reversed chemical equations and apparent discrepancy, which is accounted for by the mass law as enunciated by Goldberg and Waage.

The entire work is one in which we find higher chemistry given in a plain manner and so put before the student that he is placed in a position which enables him to do independent laboratory work without the necessity of having an elbow instructor. Of course, it is certainly better to have the latter; yet, in default of his aid the earnest and intelligent student can proceed with his laboratory work with profit to himself. The authors have made many good additions in this edition. A new method is presented for the separation of arsenic, antimony and tin, and also for the separation and identification of the acids. These methods will be immediately recognized as of the greatest possible practical value by workers in chemical analysis and the simplifying of methods should certainly be appreciated by laboratory students. These additions to the book should of themselves produce a demand for this manual and gain for it a place in every chemical laboratory.

The book is gotten up in a practical manner. Every page of text is faced by a blank page which thus enables the student to make additions as he works and studies, thus obviating the necessity of having a separate note book which may be misplaced or prove cumbersome, despite a small size. Such notes as are to be permanent, may be made in ink, and others in pencil. Careful notations added in this manner will make such a laboratory guide invaluable and an aid of the most reliable character.

The publishers have made a neat volume of the publication and we can heartily recommend it to teachers and students alike. While Ostwald's dilutive law apparently does not hold for solutions of strong electrolytes, recent work is making it more and more probable that the apparent deviations will soon be satisfactorily explained. We may hold ourselves ready for a fourth edition of this work in which this and other explanations will be given and in which the theory of ions and ionization will find a larger range of appreciation. In the meantime, the present remains the best guide to the study of qualitative analysis, of its size, which is published.

A Manual of Minor Surgery and Bandaging. For the use of House-Surgeons, Dressers and Junior Practitioners. By CHRISTOPHER HEATH, F.R.C.S., LL.D. Twelfth Edition, Revised by BILTON POLLARD, F.R.C.S. 18mo., pp. 426. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$1.50 net.

It would seem to be a piece of supererogation to attempt a review of such a well-known book as Heath on Minor Surgery and Bandaging. The present last edition has been thoroughly revised

and brought up to date by Mr. Bilton Pollard, former house-surgeon of the author, whose knowledge of the requirements of modern surgery is all that could be desired. We find throughout the book evidences of his careful revision and additions which certainly greatly enhance the value of the manual. In fact, the author having abandoned hospital practice, has done a most judicious thing in entrusting the labor of bringing out a new edition to his colleague, who is certainly better acquainted with his methods than any other surgeon.

Whilst this book has met with a large and deservedly popular demand in this country, it is not yet what it should be. In England, of course, it may be found in the pocket of every hospital dresser and house-surgeon; and, to our way of thinking, it would certainly be of advantage were every assistant physician in our hospitals to emulate this example. We can say this with the more truth in view of the fact that the present edition is anything but antiquated, and will be found quite useful upon many an occasion. It may be said with equal truth that this little manual will be found just the thing for general practitioners who are continually called upon to do some minor surgery in the smaller class of emergency cases. They will find in this book a good and practical guide.

That portion to which we desire to call particular attention is the last chapter on case-taking and the keeping of case-books. This portion is one which is too much neglected, and it is this habit which has done so much to enhance the value of the work of European surgeons. The habit, when once cultivated, lends to the development of accurate surgeons and adds, in no small degree, to their experience. The tables given in this, if studied by our hospital internes, would certainly make the histories of their cases more interesting as well as valuable and tend to inculcate habits of order and exactness.

The book should be possessed by every medical practitioner, not to mention students of medicine.

Clinical Hematology. A Practical Guide to the Examination of the Blood with Reference to Diagnosis. By JOHN C. DA COSTA, Jr., M.D. 8vo., pp. 474. Containing Eight Full-Page Colored Plates, Three Charts, and Forty-Eight Other Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$5.00 net.

In line with advanced scientific methods of making diagnoses may be named hematology as an advanced method of investigation and one from which the best and most exact results are to be obtained. While still comparatively in its infancy so much serious and competent work has been done in this method of investigation that it may be regarded as exact, so far as it has gone. All modern advanced workers in pathology have adopted this as one of their most precious methods in the determination of pathologic conditions, and they rightfully insist upon blood

examinations to make a complete picture when formulating the true condition of a patient suffering from a disease, whether it be non-surgical or surgical. Hematology furnishes a valuable aid in the formation of a diagnosis or prognosis and one of whose exactness there can exist no doubt or question. The only objection which we have heard made to it is that it is complicated; and yet this can hardly hold, as it is not nearly so much so as ordinary histologic work. Care must of course be taken in the preparation of specimens, and yet the technique is comparatively easy, and the only difficulty in connection with the whole subject is a proper interpretation of the picture which is presented to view, but even this will be readily overcome by a study of the facts presented by competent observers who have made a special study of the matter.

It is this very ability to understand the microscopic picture presented by a picture of the blood as shown by the microscope which the book before us has been designed to confer upon him who studies it. The author has been a faithful worker in this field and his experience has been a large one, enabling him to speak on the subject in an authoritative manner. The author has done his work conscientiously and intelligently as well as thoroughly. As a result of this the book before us is the most practical and systematic of any on this subject which has yet been issued. There can exist no doubt that it is one of the most important medical books issued in 1901; and, judging from the manner in which it is written, it bids fair to retain that position for some years to come. The primary object of the book has been to supply the medical profession with a reliable guide and one easily understood by him who is not an expert nor ever expects to become one, but who still desires to enlarge the field of his knowledge in the making of a diagnosis. It is largely for this reason that the book is so valuable. The methods, in which the greatest detail is given, are those for every-day clinical examination. The more complicated methods are not given with such an abundance of description, as they are more properly adapted to the large laboratories equipped with the finer instruments of precision and in which more time can be devoted to minutiae and to the elaboration of the finer points of the subject. In fact, the purpose of this work has been to interpret the blood report according to its true value as a clinical sign. There is no claim made that the book is complete in all particulars, but a very successful attempt has been made to give all the salient points of hematology as they are known at the present time.

The book is interesting throughout, and the plates which are given will be found more than ordinarily useful in assisting to a proper understanding of the microscopic pictures found. The colors which are reproduced are unusually faithful to those represented and seen under the microscope. In fact, a faithful adherence to the staining methods which are given will never fail to

give perfectly satisfactory pictures, which will be found reproduced in a most faithful manner in these plates, which one glance will show were drawn from actual specimens. The illustrations in black and white are equally accurate and satisfactory in the highest degree. In fact, the entire work is one whose value cannot be adequately given in words, and it requires a study of its pages and practical experience with and demonstrations of its methods to understand its true worth. We are very much pleased with it, as it undoubtedly fills a long-felt want which has existed among the majority of the medical profession, and which has not been satisfactorily met by the few desultory journal articles, which touched but a very few points. The work before us is systematic, complete, and practical, and just what has been needed. There is no doubt that this first edition will be exhausted in a very short time.

LEA'S SERIES OF POCKET TEXT BOOKS.

Venereal Diseases. A Manual for Students and Practitioners. By JAMES R. HAYDEN, M.D. Third and Revised Edition. 12mo., pp. 301. Illustrated with Sixty-six Engravings. [Philadelphia and New York: Lea Brothers & Co. 1901. Price, cloth, \$1.75 net; flexible leather, \$2.25 net.

The present edition of Hayden is certainly a great improvement upon the two former ones. Whilst it is not intended to be more than a handbook, it certainly is a reliable, succinct guide, of value to the general practitioner as well as to the student. Those teachers of venereal diseases who have adopted it as a textbook have found that their teachings have been much better understood and appreciated by means of the aid it afforded. The book can be frequently consulted with profit, more especially as particular attention is given to the subjects of diagnosis and treatment. We are pleased to note the fact that the popularity of this manual has been so great, and we anticipate a greater demand will exist for it than ever before existed. In the present edition there is evidence on every page of the thorough revision which it has undergone at the hands of the author, who has certainly succeeded in his endeavor to bring it up to date.

Among the improvements to be noted is the addition of several new illustrations, which certainly add to the value of the book. We had hoped that the portion devoted to syphilis would be enriched by some figures, but the author probably desired to make this thorough or not introduce an inadequate number of examples, a thing which would have been necessitated by the restrictions necessarily imposed by the size of the book. This, however, can be easily remedied by using an atlas. The text has been augmented by new sections on vegetations and herpes progenitalis, both of which are presented in a clear, terse and incisive manner, as all the contents of the book are.

As the author states in his preface, the object of the book is

to furnish in clear, compact form a practical working knowledge of gonorrhea, stricture, chancre, and syphilis, together with their complications and sequelæ. This object is certainly accomplished, and the practical features which characterize the book are prominent and will be deeply appreciated by those who consult it. No one need be disappointed by referring to it if the object be to obtain reliable information on general principles. Rarities, strange conditions and the like are not mentioned, as they really come within the domain of large treatises. What is perhaps more to the point is the stress laid upon the proper management of cases. For this reason the chapter on urethral instruments, their care and use, is one which could certainly be consulted with profit by many who consider themselves above the limited teachings offered by a manual. This part is alone worth the price of the book, and will lead to better modes of practice, as well as better results, if the teachings there given are but followed as they should be.

The book is in every sense of the word a good one. The author is sufficiently conservative in his teachings not to lead anyone into pitfalls, and sufficiently radical and explicit to afford real help in times of doubt or perplexity. It is certainly worthy of being ranked among the medical handbooks which have earned for themselves the title of being *vade mecum*s. The book is attractive as presented by the publishers, and the handsome dress given it is no more than its intrinsic value merits.

Studies in the Psychology of Sex: Sexual Inversion. By HAVELOCK ELLIS. 8vo., pp. 272. [Philadelphia: F. A. Davis Company. 1901. Price, \$2.00 net, delivered.]

The volume before us is the second one in the series by this author devoted to "Studies in the Psychology of Sex," which will probably be completed in five volumes. It is a fit companion to the masterly work of Krafft-Ebing upon *Psychopathia Sexualis*. The author of the book before us elaborates certain portions of this latter work and cites numerous illustrative cases, which possess all the value, detail, and interest which such would be naturally supposed to possess. It is a serious work intended for those who have devoted thought to and have investigated the subjects with which it deals. The author is certainly fully competent to handle the subject, for we find that he is an L.S.A. (England); Fellow of the Medico-Legal Society of New York and of the Anthropological Society of Berlin; Honorary Fellow of the Chicago Academy of Medicine, etc. In addition to this, he has been the general editor of the Contemporary Science Series since 1899. With such qualifications we would naturally expect a superior book from his pen and this is what he has furnished, in addition to producing one full of interest and information.

To give merely an idea of the contents of this book, the titles of the seven chapters of which it is composed will be sufficient.

Chapter I. is introductory, dealing chiefly with homo-sexuality among animals, the lower human races, and criminals. In Chapter II. is considered the Study of Sexual Inversion as shown by the writings of the principal authors on this subject. Chapters III. and IV. are respectively occupied with Sexual Inversion in Men and in Women. Then follows a chapter on the Nature of Sexual Perversion, and this is deserving of more than ordinary attention. Chapter V. is equally important, as it deals with the Theory of Sexual Inversion; and, in this, the author very clearly shows the fallacy of a number of theories which have been advanced. His contention is that sexual inversion is abnormal but not morbid. It is not a disease but an abnormality as much as Daltonism is. In Chapter VII., which concludes the book, the treatment of sexual inversion and similar subjects are taken up and reviewed.

The volume before us is the second edition, the first having appeared in England and being suppressed by the government on the charge of immorality. For this reason the author lays stress upon the fact that the present is the only one authorized by him. The only omission is that of a brief appendix written by a woman physician, which was not in any way essential to the completion of the volume. We have no doubt that all those physicians who possess Krafft-Ebing's work will place this one next to it on their book shelves. We are much interested in the series on the Psychology of Sex, and will wait with impatience the appearance of the next volume.

A Brief Manual of Prescription Writing in Latin or English.

For the Use of Physicians, Pharmacists, and Medical and Pharmacal Students. By M. L. NEFF, A.M., M.D. 12mo., pp. 136. [Philadelphia: F. A. Davis Company. 1901. Price, 75 cents net, delivered.

In this booklet of 72 printed pages the author has made no attempt to write a Latin grammar, but rather to so simplify the Latin which is employed in prescription writing as to enable one who does not know the language to write a correct prescription. Case endings are given very concisely and in such a way that the student will not get confused, whilst being enabled to employ them properly and in the right place. For students who have not received adequate instruction in Latin this little book will fill the necessities of the case, as well as lead to a correct style of writing prescriptions. The author very sensibly states that modern names are not all susceptible of being latinized and are properly regarded as neuter in gender.

In addition to the part purely devoted to prescription writing, an appendix is added which contains much valuable matter, such as Latin phrases with their abbreviations, rules for incompatibles (tabulated), table of doses and a blank formulary, or rather a number of blank pages upon which prescriptions may be written

for future reference. Medical students, as well as many practitioners of medicine, will find this a handy and useful guide to refer to in cases of doubt.

The Medical News Pocket Formulary for 1902. By E. QUIN THORNTON, M.D. Fourth Edition. Revised. 24mo., pp. 287. In one wallet-shaped volume, leather, with pocket and pencil. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, \$1.50 net.

The popularity of this little book is certainly a most unquestionable one. The fact that four editions have been demanded in four years is ample proof of this fact. An examination of its contents will easily show the improvements which have been made, and also the fact that everything has been brought up to date. Of course it is not intended to supplant the larger treatises upon the practice of medicine, but it does act as an adviser which supplies most valuable hints on treatment to the practitioner who has made a diagnosis. New methods of administering remedies are given, and even an old experienced man at the business will find many a help of more than usual value to him in the prosecution of his business. We look upon this formulary as among the best which have been placed before the medical profession in recent years.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL :

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Assisted by H. R. M. Landis, M.D. Vol. IV. December, 1901. 8vo., pp. 409. Illustrated. [Philadelphia and New York: Lea Brothers & Co. 1901. Per annum, in four cloth-bound volumes, \$10.00.

LEA'S SERIES OF POCKET TEXT-BOOKS:

Venereal Diseases. A Manual for Students and Practitioners. By James R. Hayden, M.D. Third and Revised Edition. 12mo., pp. 301. Illustrated with Sixty-six Engravings. [Philadelphia and New York: Lea Brothers & Co. 1901. Price, cloth, \$1.75 net; flexible leather, \$2.25 net.

A Manual of Minor Surgery and Bandaging. For the Use of House-Surgeons, Dressers and Junior Practitioners. By Christopher Heath, F.R.C.S., LL.D. Twelfth Edition, Revised by Bilton Pollard, F.R.C.S. 18mo., pp. 426. Illustrated. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$1.50 net.

A Laboratory Guide to the Study of Qualitative Analysis. By E. H. S. Bailey, Ph.D., and Hamilton P. Cady, A.B. Fourth Edition. 12m., pp. 234. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$1.25 net.

Clinical Hematology. A Practical Guide to the Examination of the Blood with Reference to Diagnosis. By John C. DaCosta, Jr., M.D. 8vo., pp. 474. Containing Eight Full-Page Colored Plates, Three Charts, and Forty-eight other Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$5.00 net.

STUDIES IN THE PSYCHOLOGY OF SEX :

Sexual Inversion. By Havelock Ellis. 8vo., pp. 272. [Philadelphia: F. A. Davis Company. 1901. Price, \$2.00 net, delivered. Sold only to physicians, lawyers, advanced teachers, and scientists.

A Brief Manual of Prescription Writing, in Latin or English. For the use of Physicians, Pharmacists, and Medical and Pharmaceutical Students, By M. L. Neff, A.M., M.D. 12mo., pp. 136. [Philadelphia: F. A. Davis Company. 1901. Price, 75 cents, net, delivered.

The Medical News Pocket Formulary for 1902. By E. Quinn Thornton, M.D. Fourth Edition. Revised. 24mo., pp. 287. In one wallet-shaped volume, leather, with pocket and pencil. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, \$1.50 net.

Who's Who in America has just been issued in its second edition with many additions. It is a good and full index to the more prominent living Americans.

Her First Picture Book is a reproduction of the painting of Helen Hyde, which won a medal at the recent Paris Universal Exposition. The little Japanese girl who is represented in this picture is engrossed in the examination of a picture book, and we find this truly artistic work full of the humor which attaches to children, whether they be Caucasians or of any other race. This well-executed reproduction has been distributed to the medical profession by the Antikamnia Chemical Company as its calendar for 1902. The purely calendar part appears on the back, and thus in no way interferes with the picture. Any physician who has not received this artistic bit may obtain it by sending ten cents in stamps, with a request, to the Antikamnia Chemical Co. of St. Louis.

A Start and a Finish is a parable directed against the substitutor by F. A. R. It is not *far* to find our genial friend, Frank Ruf, the President and Treasurer of the Antikamnia Chemical Co., as the author. It is neatly gotten up in *edition de luxe* style and has a scarlet cover, which insures its being re(a)d. We hope to soon see another issued and thus make the beginning of a series.

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ORIGINAL COMMUNICATIONS.

LATEST DEVELOPMENTS OF THE "FINSSEN" METHOD OF TREATMENT OF LUPUS.

BY DR. KATTENBRACKER, SPANDAU, GERMANY.

Not until a few years since did Dr. Finsen of Copenhagen come forward with his epoch-making discovery, that the actinic rays of the spectrum supply a remedy for one of the most troublesome and stubborn diseases, conducive to the most unsightly disfigurements of the features, namely, lupus. Both as regards its un-failing efficacy, and the final result of its skin-healing and beautifying action, the newly discovered cure was destined to overshadow and far surpass all the methods previously tried, such as surgical operations, escharotics, cauteries of the many various kinds, etc. In view, however, of the inadequacy of all the older remedies then known, it is not to be wondered at that in medical circles the new therapy was at first generally regarded with a certain scepticism. But presently the vast number of patients who had been cured by the "Finsen" method of treatment of lupus in its most acute forms, compelled a recognition by medical authorities of the undoubted fact that it really *is* feasible to utilize the bactericide properties of actinic rays—which, in themselves, had already been known for considerable time—in combating an affection, such as lupus, which may be said to have hitherto defied practically all known remedies.

The mode of employment of actinic light rays which are now in general use and which, in Germany in particular, are adopted even by the universities, is commonly known to be as follows:

Sunlight or electric arc-light is concentrated by means of powerful condensing lenses and directed on to the diseased part through water cooling apparatus; the seat of the disease being at the same time made as nearly exsanguinous as possible by the pressure of special rock crystal glasses, so that the rays may the deeper penetrate the tissues. The treatment is perfectly painless, as the heat rays contained in the light are almost entirely absorbed by the layer of water or sulphate of copper. A fact, which may be assumed to be generally known, is that the bactericide action can be claimed solely for the actinic, *i. e.*, the blue, violet and ultra-violet rays. Now, wonderful as were the results which had already been achieved by the "Finsen" method, a great many obstacles, nevertheless, stood in the way of its introduction into general use. Primarily, the heavy expense involved in the necessary equipment, amounting as it does to something between £150 and £300, entailed, as a direct consequence, the erection of special premises and the provision of a large staff of attendants, inasmuch as each period of treatment lasts at least an hour during which a special attendant is required for each patient to manipulate the pressure glass. (At Dr. Finsen's own establishment a number of ladies, belonging to the better classes of society, give their services for this purpose voluntarily). Then in addition to sunlight, which is only available for therapeutic purposes in certain seasons of the year, and during a limited number of hours daily, powerful arc-lamps (of, say, 80 ampères) have to be used. Also the number of actinic rays which are obtainable (and no other rays can be employed) is comparatively small, seeing that, in the spectrum of the rays, which must, of course, be eliminated by means of the water filters, etc., already alluded to. The object, therefore, was to find a source of light which, contrarily to the usual carbon arc-light, should show a preponderating proportion of actinic light rays, and as small a proportion as possible of heat rays. The experiments which were made, with this object, by the engineer, Kjeldsen, at the "Finsen" Institute and which involved the employment of an almost inconceivable variety of metals, as electrodes, in lieu of carbons, led to the surprising discovery that it is precisely the spectrum of iron that is particularly rich in actinic rays, while it only contains very few heat rays. On the strength of this discovery Kjeldsen has devised a special lamp for carrying out the "Finsen" method of treatment,

in applying which he employs hollow iron electrodes which are internally cooled by running water. As was pointed out by Bang, at the Congress of Naturalists at Hamburg, the trials, first made at the "Finsen" Institute, lead to a result which in the therapeutic respect went beyond all expectations. There is obtained light of high intensity, with which within three minutes the same therapeutic, or rather bactericide, effect is secured, which in the old arrangements could not be produced in less than about an hour. Reports such as these were calculated to give rise to more searching tests, and these were carried out at the institute of Dr. Aufrecht in Berlin, with the object of ascertaining the effect of the light of an iron electrode lamp upon bacteria, the following being a summary account of the results:

The arrangements made for the experiments were as follows:

Source of light: Five ampère-continuous-current; light issuing from iron electrodes, with means for cooling by water; pressure of lamp: forty volts; distance from source of light: ten centimetres; light *not* concentrated.

The feeding substrata were *15 per cent. of gelatine* for gonococci and tuberculous bacilli, and *2 per cent. of glycerine agar uniformly coated with sterilized blood*. As test objects the following micro-organisms were adopted: Typhus abdom.; cholera asiatic.; streptococc. pyog.; bact. colic.; gonococci and tuberculous bacilli.

The "sowing" of the bacteria was effected by delicately spreading superficial beds of cultivation, carried by sterilized blood serum for a vehicle, upon plates with a feather. All the cultivation plates, including those which for purposes of observation were treated with ordinary light, and which had been similarly infected, were maintained at a temperature of 22° Centigrade or 37° Centigrade, as the case might be.

After 48 hours the illuminated parts were inoculated with glycerine agar, and for two days maintained at a temperature of 37° Centigrade. Then came the question of ascertaining by the growth of the colonies, or (alternatively) by the extent to which the tubes remained sterilized, whether the bacteria were still viable or not.

The progress of each experiment and the corresponding result, in the case of each of the pure cultivations, are embodied in the following table.

For the sake of brevity I have adopted the following marks:

*, growth; †, precise time when development was checked, and ‡, destruction.

Micro-organisms.	Duration of Test.	Effect.	Micro-organisms.	Duration of Test.	Effect.
Typhus abdom.....	1 Second	†	Streptococ. pyg.	2 Seconds	*
" "	3	" *	" " ..	15	" *
" "	30	" *	" " ..	60	" *
" "	60	" †	Observation..	60	" †
Observation..	60	" *	Bact. coli comm..	1	" †
Cholera asiat.....	5	" *	" " " ..	5	" *
" "	30	" *	" " " ..	60	" *
Observation..	60	" †	Observation..	5	" †
Bac. tuberculous..	5	" *	Bact. anthrac.....	1	" †
" "	45	" *	" "	5	" *
" "	60	" *	" "	30	" †
Observation..	45	" †	Observation..	30	" *
Mikroc. gonocc....	1	" *			
" "	5	" *			
" "	30	" *			
Observation..	60	" †			

Although I do not by any means take the view that tests made with cultivations of bacteria on plates are conclusive with regard to the human system, it is none the less the fact, which these tests have clearly brought out in practice, that the bactericide power of the actinic rays, and especially their curative effect, have been established beyond doubt in the cases of innumerable patients, and that what we have before us is an apparatus leading to the same results in considerably less time than it would be otherwise feasible, and with a material reduction in the expenditure of electrical energy. For, whereas, with the old "Finsen" arrangements from 80 to 100 ampères of current was required, the new lamp now introduced under the name of "Dermo" by the "Sanitas" Electrical Company of Berlin, and placed on the market in a particularly handy form, demands only five ampères to produce in three minutes the same effect which it previously took nearly a whole hour to secure. And as consequently not only a great saving of time is effected, but the cost of the installation scarcely reaches one-tenth of the outlay necessitated by the old arrangement; and inasmuch as, furthermore, with this lamp the staff of attendants formerly required may practically be dispensed with altogether, every consulting physician is thereby enabled to carry out Finsen's method of treatment during his us-

ual hours of attendance. The pressure-glass is here replaced by a disc of rock crystal, which shuts the slit or aperture through which the light of the lamp is emitted, and which for the purposes of treatment is laid upon the main seat of the disease. The patient experiences no sensation of heat at all, since at a distance of 10 centimetres from the luminous arc the average temperature does not exceed 22° Centigrade. The strongly irritating effect of the actinic rays of light, to which Dr. Finsen, among others, had already called attention years ago,* manifest itself in a very striking manner in this new apparatus also; for a few minutes after they have begun to act a perfectly painless and, as the observations made in the "Finsen" Institute have shown, long enduring erythema is brought about. The illustration opposite may serve to convey an idea of this irritating action; it is a view of the arm of a healthy man. In his case I carried out the test as follows: Black paper letters (which in the drawing† appear white) were fixed on, whereupon I caused the light of the lamp to act on that part for three minutes. Over the entire region of the skin thus illuminated a pronounced erythema formed within about two hours, which only left those main portions free which were situated below the paper letters and were not touched by the light rays, so that after the removal of the paper the word "Dermo" appeared in white letters within the erythema. While I have here especially dealt with the application of Finsen's method to the cure of lupus, it is, of course, obvious that the new lamp may in the same way be employed for other skin diseases, so long as they are at all amenable to treatment by the Finsen method. With reference to these I would call attention to the latest publications in the *Zeitschrift Fuer Diatetisch-Physikalische Therapie*, by Lesser of the "Finsen" Institute, attached to the Berlin University.

Population of Canada.—The population of the province of Quebec is growing at the rate of 9 per cent. in every ten years, while that of Ontario is increasing only 2½ per cent. in the same time.—*Ec.*

*Finsen: "Das Licht als Incitament."

†There was no picture sent.

ICHTHYOL IN TUBERCULOSIS.*

BY CHARLES F. SPANGLER, M.D., KANE, PA.

It is doubtful if any climate can be so perfect that it will not bear some additional means of enhancing its efficiency. While it is true that tuberculosis patients occasionally recover by depending upon climate influence alone, in the sense of roughing it or listlessly communing with nature, these can be considered as the selective, fortunate few favored by temperament and otherwise, who are destined to improve under any favorable environment. The trend of the great majority pursuing a similar course is to display a measure of improvement for a time, remain stationary, or lapse into a state of more or less rapid retrogression.

The experience of the last three seasons shows that the patients do not respond satisfactorily to the routine treatment of creasote or its derivatives in this section of the Alleghenies. Nearly all patients came to the mountains for the purpose of testing the climate unaided or to continue the creasote treatment instituted previously. After several weeks the slow progress experienced demonstrated the insufficiency of the plan, and the introduction of ichthyol to the treatment resulted, in many instances, in an improvement so marked that the method has been exclusively adhered to in all cases treated during that period.

Among the few who were not amenable to the discipline imposed by reason of devoting the major portion of the twenty-four hours exposed to the dust and other contaminations of the busy thoroughfares, it has been my impression that the benefit derived in these instances was due more to the ichthyol, in addition to the mental effect of mere change of locality, than from any climatic influence, *per se*.

Nature does not generate a pure health-giving air amid the bustle of business traffic in any community, nor does it enter the dwelling place in such environment in search of the distressed, but out in the open country it beckons a welcome, where all in need may find succor, exemplifying the rule "that thickly populated centres are to be avoided," which applies as forcibly to Kane as to all other health districts.

In the number who were not able to take advantage of the climate for more than a few months it has been observed that the ich-

*Read before the Philadelphia County Medical Society, Dec. 11, 1901.

thyol, continued under the most favorable conditions in the home environment, resulted in a prolonged extension of the improvement.

Ichthyol possesses a wide range of therapeutic utility by reason of the innocuous form of sulphur contained in its composition. It is acceptable to the stomach, promoting its function; is readily absorbed by the alimentary mucosæ, and when administered in quantity is in turn eliminated by the mucous surfaces in general. In the tissues it possesses, to a high degree, the property of stimulating that function of protoplasmic life concerned in constructive metabolism, resulting in an increase in bodily weight, and aside from the local impression exerted through the process of elimination, accomplishes its chief curative value in tubercular and other forms of wasting disease through this reconstructive property.

The chief objection to its use is the odor, taste, and eructations, which are neutralized to a considerable extent by the use of capsules. In deference to the objectionable features, I, several years ago, abandoned the custom in vogue of administering the solution in ascending doses, reserving this method for the variety of cases in which the upper air passages are involved, for the purpose of securing the impression from contact in the act of deglutition.

The plan most generally acceptable has been to begin with a No. 1 empty capsule (filled by the patient) after each meal for the first week, adding another to each dose during the second, and a third to each dose the third week. The dosage is maintained indefinitely, and presents the advantage of attaining the maximum degree of tolerance in the shortest time.

If discomfort arises from the eructations the interval between each dose is apportioned to afford ample time for complete appropriation before another is introduced. This is provided for by giving the capsules after breakfast and at bed-hour. Each individual temperament throughout the treatment suggests or determines the most appropriate and effective arrangement of the dosage, and the ability to prolong the treatment indefinitely is dependent upon the delicacy of this adjustment. For in the application of ichthyol, as of any other remedy, a greater degree of harmony can be maintained by having an elastic mode of administration rather than an inflexible method or technique, and endeavor to compel the varied temperaments to conform to it.

During the first week of the treatment little or no appreciable effect is noticeable in the chest symptoms; after that time, however, a gradual impression becomes manifest. The cough paroxysms lessen in intensity and frequency, the expectoration becomes more profuse, and the sputum loses a measure of its density. Proportionately to the amelioration of local symptoms the appetite improves, and there is usually a marked weekly gain in weight.

Notwithstanding its exceptional service in the chronic forms of the disease, experience proves it of little value in the acute complications. If, at any time, the progress of the improvement is interrupted by the intervention of a pleuritic or pneumonic attack, which, unfortunately, too frequently occurs in this latitude, the ichthyol is suspended until the acute symptoms subside, when it is again resumed. These complications yield most readily to guaiacol carbonas, thiocol, or phenol hypodermically. The latter reserved for the cases associated with gastric or intestinal irritability, in which the aversion to food or medicine precludes treatment by that channel. During the early months strychnin in supporting doses has proven a valuable adjunct to the treatment of many cases.

Considering its availability from the view-point of existing conditions, climatic treatment is a luxury only attainable by a small percentage of cases, and until sanatoria are provided by legislation or private philanthropy to accommodate the poorer patients in our communities, who, by their environment, contribute a daily quota to an already congested volume, any improvement in the condition of this class is dependent upon the benevolent inclination of the physician. I would suggest, therefore, that all cases of obstinate cough or persistent irritation of the upper air passages, particularly when following an attack of grippe, pneumonia, or typhoid fever, be placed upon ichthyol and appropriate habit discipline.

Obstinacy in itself is sufficiently suggestive of the suspicious tendency, and since it is well known that the result of treatment is slow at best, why delay the antitubercular measures until the disease has advanced into the stage when its presence is clearly asserted by well-defined clinical features? Why not reverse the customary rule, institute treatment in the pretubercular stage, and extend to the patient the benefit of the doubt? This pro-

cedure would prove most effective as a practical common-sense source of elimination on safe lines, materially diminishing the number who ultimately need change of climate. Urge the patient to live in the best available atmosphere; to sleep alone in clean, well-ventilated, carpetless rooms; to judiciously practice upper-waist calisthenics regularly every morning, with moderate deep-breathing exercise when in the fresh air, and there will be much less ill results to record from failure to recognize tuberculosis in its earliest incipency; and in the event of recovery a substantial barrier will be maintained against recurrence.

CASE 1.—S. N., a Philadelphia bank clerk, white, 18 years of age, began to cough in November, 1900. This symptom gradually became associated with marked dyspnea, hectic, night-sweats, moderate hemorrhages, and tubercle bacilli. He was treated during the winter with guaiacol and thiocol, which evidently succeeded in restraining the advancement of the disease. He came to Kane early in April, and had a slight hemorrhage the first week. An examination revealed both apices to be implicated. He was placed upon ichthyol, and has continued its use since. Early in June the improvement was such that I yielded to his desire to visit Mount Pocono, where he spent the remainder of the season. In a recent letter he reports having been examined several times during August by Dr. Evans of Philadelphia, who, with the exception of a slight cough, failed to detect any local signs.

CASE 2.—F. P., a Philadelphia student, white, 19 years of age, began to cough two years ago. He came to Kane last July with marked dyspnea, night-sweats, emaciation, bacilli, and evidence of infiltration in both apices and the right middle lobe. He returned to his home last week with a marked improvement in the local condition and a gain in weight of eleven pounds.

CASE 3.—James M., a night railroad employe of Williamsport, white, 37 years of age, coughed for three years as a consequence of repeated colds, due to exposure. The cough paroxysms gradually increased, the expectoration became more profuse, with dyspnea, hectic, night-sweats, emaciation, bacilli, and frequent hemorrhages. He came to Kane early in June. I found infiltration in the left apex, and generally throughout the right lung. He returned to work in September, having gained twenty-two pounds, and reports not having any inconvenience.

CASE 4.—J. F., a clergyman of Kane, white, 46 years of age, has coughed since an attack of la grippe in January, 1901. He exhibited hectic, night-sweats, dyspnea, emaciation, bacilli, and infiltration in both apices and in the right middle lobe. He began taking ichthyol in April. In a recent examination there was absence of any local lesion. He has regained the lost weight and energy, and has resumed his clerical duties.

CASE 5.—C. L., a carpenter of York, white, 38 years of age. His cough began in May, following an attack of pleurisy. He came to Kane early in September. Examination revealed infiltration in the right apex and the right middle lobe, with bacilli. He has improved steadily, having gained ten pounds, and is anxious to return to work.

CASE 6.—C. R., a bookkeeper of Kane, white, 35 years of age. Trouble dates from an attack of la grippe in February. Infiltration of the right apex exists, and also of the middle lobe, with bacilli. He returned to work in October, having fully recovered.

CASE 7.—J. C., an Italian, of Kane, is 42 years of age. Cough followed an attack of pneumonia last winter. There were marked dyspnea, hectic, night-sweats, emaciation, and bacilli in abundance. The left apex and the left lung were generally infiltrated. He continued the ichthyol during the spring and summer months, returning to work in October, greatly improved.

CASE 8.—Mrs. K. of Kane, white, 45 years of age. Her cough began in October, 1900, subsequent to an attack of la grippe. An examination in April revealed infiltration of the right lobe generally; there were bacilli, marked emaciation, and debility. In September she was able to resume her usual household duties, with only a trace of the local condition discernible.

DISCUSSION.

Dr. Guy Hinsdale said he had not used ichthyol in tuberculosis, but had used creasote. He remarked upon the difference in the age of ichthyol and creasote as remedies in tuberculosis. He had not known, until Dr. Mays spoke, that ichthyol had been used so long ago as fourteen years. Dr. Mays must have been among the very first to have used this remedy. Creasote had been used since 1837. In looking up the matter Dr. Hinsdale was surprised to know that it had been so long before the medi-

cal profession. According to Louis,* M. Rampold had used it previous to 1837, when he reported that it was a useful remedy in certain cases, but that it should be withheld when there is a dry cough, fever, or active hemoptysis. Elliotson also reported in 1838 a cure following the use of creasote in a case of pulmonary phthisis with cavity.

The origin of ichthyol is from a crude oil which is derived from the destructive distillation of a bituminous deposit of fossil fish and marine animals found in the Tyrol Mountains. The ammonium salt is the usual form in which it is used, or the combination of sulpho-ichthyolic acid with ammonium. It contains about 10 per cent. of sulphur.

Moritz Cohn of Hamburg was probably the first to use this remedy in tuberculosis because of its bactericidal qualities. He used it in over one hundred cases of phthisis during two years, and the results were uniformly good. The ichthyol was mixed with an equal quantity of water, and of this four drops, well diluted with water, were administered three times daily. This was increased by one drop daily. In a later report† Cohn reaffirms his good opinion of ichthyol, many of his earlier cases having continued to improve. Ichthyol seemed to act in two ways—partly as hindering bacterial growth, partly as lessening nitrogenous metabolism—and there were no subsidiary poisonous effects. Cohn did not claim any direct action on the tubercle bacilli in the human body, but it saves the strength of the human organism and puts it in better position to counteract bacilli that have entered. His best results were in early apex cases, in some of which all symptoms disappeared while under this treatment. Advanced cases were also benefited; there was improvement in cases, also, where creasote and cod-liver oil failed. Ichthyol failed very naturally in many cases of large excavation and high fever. It has an advantage over creasote in being non-toxic. The disagreeable taste is partly corrected by a little coffee taken afterward.‡

Scarpa§ of Turin used ichthyol in 150 cases of pulmonary tuberculosis, giving as high as 180 to 200 drops daily. He noted considerable improvement, owing to better nutrition, lessened

*Recherches sur la Phthisie, Paris, 1843, p. 642.

†Deutsche med. Woch., July 9, 1896.

‡Ibid., 1894, No. 14.

§British Medical Journal, 1895, No. 1787.

cough, expectoration, and dyspnea. The physical signs noticeably improved.

Dr. J. Edward Stubbert of the Loomis Sanitarium, at Liberty, N. Y., has used ichthyol in a double gelatin-coated pill, termed "enteric" pills, so that absorption shall take place in the bowel. He says that the best results are obtained from the administration of large doses, and if the drug is given in such form as to pass the stomach undissolved, amounts of twenty grains three times a day are easily borne, and untoward effects are few. An occasional diarrhea, or an attack of vomiting, which is preceded by the taste of ichthyol, may occur; these symptoms quickly subside upon the withdrawal of the drug, and with its resumption the dose which caused the above-mentioned symptoms can usually be given without further trouble.

The improvement is rapid, and within one month, in individual cases, where other beneficial factors would be eliminated, there may be a gain in weight of eight or ten pounds, and in those patients whose weight had previously, and under different surroundings, remained stationary for long periods of time. There is improvement in general nutrition, as evidenced in females by return of menstruation. The fever, sweats, and cough diminish, the sputa are more easily brought up, the quantity is less and the character changed from greenish-yellow to yellow, finally becoming mucoid and frothy. In some instances expectoration is too quickly reduced, and patients experience difficulty in raising the sputa. In cases far advanced, those having a cavity with excessive expectoration, when ichthyol acts well the effect is striking, and it is more than suggestive of the important part played by the secondary infection in tubercular processes. Ichthyol changes the character from the fetid, decomposed, purulent sputum into that which is mucoid and frothy, ameliorates the symptoms of fever, chills, sweats, and general failure of nutrition dependent upon the absorption of pus products, so that it may be said that in such cases ichthyol practically accomplishes drainage and, what is more important, tends to convert the function of the pyogenic membrane into one which secretes mucus instead of pus. The debilitating effects of pus absorption are put aside, and there is general improvement noted.

Illustration.—Case No. 280. Loomis Sanitarium. Condition, far advanced with cavity; bacilli, almost disappeared; physical

signs, improved; expectoration, decreased; weight, gained five pounds.

NUMBER OF CASES TREATED, 51.

<i>Classification of Cases.</i>		<i>Physical Signs.</i>	
Incipient stage . . .	15	Improved . . .	36
Moderately advanced, . . .	22	Increased . . .	6
Far advanced . . .	14	Stationary . . .	9
	— 51		— 51
<i>Expectoration.</i>		<i>Cough.</i>	
Decreased . . .	37	Decreased . . .	36
Stationary . . .	14	Stationary . . .	15
	— 51		— 51
<i>Tubercle Bacilli.</i>		<i>Weight.</i>	
Not present . . .	3	Increased . . .	37
Disappeared . . .	3	Lost . . .	6
Decreased . . .	28	Stationary . . .	8
Stationary . . .	16		— 51
	— 51		
<i>General Condition.</i>		<i>Summary.</i>	
Improved . . .	37	Cured . . .	14 per ct.
Stationary . . .	8	Improved . . .	57 "
Worse . . .	6	Stationary . . .	17 "
	— 51	Worse . . .	12 "

The following is a summary of four methods of treatment adopted:

<i>Serum.</i>		<i>Kalagua.</i>	
Cured . . .	24 per ct.	Cured . . .	24 per ct.
Improved . . .	59 "	Improved . . .	45 "
Stationary . . .	9 "	Stationary . . .	17 "
Worse . . .	8 "	Worse . . .	14 "
<i>Ichthyol.</i>		<i>Creasote.</i>	
Cured . . .	14 per ct.	Cured . . .	16 per ct.
Improved . . .	57 "	Improved . . .	40 "
Stationary . . .	17 "	Stationary . . .	17 "
Worse . . .	12 "	Worse . . .	27 "

It is noteworthy that under ichthyol the smallest proportion, 14 per cent., were recorded cured, while the smallest proportion also were made worse, or 12 per cent. Of course, in addition, there was the great advantage of climatic and sanatorium treatment.

In speaking of the treatment by Dr. Stubbart, Dr. Hinsdale said that he had been at the sanitarium, and, while they have

every advantage of climate possible this side of the Rocky Mountains, they use remedies as well. The sanitarium is conducted in an admirable manner, and was generously supported by friends from New York and by patients who were able to pay. Ichthyol, creasote, and other forms of treatment were used, and Dr. Hinsdale thought it gratifying to see such reports as those sent out by the sanitarium. He thought Dr. Spangler did well to bring the matter before the profession. If ichthyol is used, it ought to be in a manner that would not disturb the stomach. If put into these capsules or enteric pills it will reach the part where absorption will take place without interfering with digestion.

Dr. Spangler, in closing the discussion, said the objection to using ichthyol in pill form is the inability to incorporate more than a few drops in each pill, necessitating the employment of several dozen daily. The composition of the pills designed to resist the action of the gastric juice would in all probability result in a loss of a medicament value, especially when intestinal digestion is enfeebled. In taking ichthyol in capsules, patients notice the eructations during the first few days, but by lengthening the interval, as suggested, this difficulty is overcome.

In the treatment of tuberculosis at least 50 per cent. of the benefit must ultimately come from the interest instilled by the patient in exercising the muscles of the chest and by deep breathing for the purpose of stimulating drainage and cultivating greater lung capacity. Exercise, general or local, should always be judiciously apportioned with rest, and care taken to avoid over-fatigue.

Medicine renders its service in the initial recovery, but it cannot supply the inhibitive power required for future protection; this must come from the self-aids.

The Responsibility for Unhealthy Schoolrooms.—A girl recently sued, through her guardian, the Benton Harbor, Mich., school board for \$10,000 damages because of an illness alleged to have resulted from sitting in an unhealthy schoolroom. The Court decided, however, that schools are not liable in private action for injuries sustained through the negligence of school officials.—*Med. Rec.*

BOVININE IN MATERIA MEDICA.*

Extract from Garrod's *Materia Medica and Therapeutics*; American

Edition by ROBERT C. KENNER, A.M., M.D., Ex-

President Louisville, Ky., Clinical Ass'n.

Bovinine, one of the most important and widely useful of all the remedies to which the physician has recourse, may be defined as live defibrinated arterial blood, which is sterilized and preserved by cold process. It contains all the nutritive elements; twenty per cent. of its volume is coagulable albumen.

It is a pure food that is readily assimilable, and increases in a brief time the general systemic nutrition, the pulse assumes a good volume, and other manifestations of its food value are apparent. This fact renders bovine one of the most important foods known to the profession, since we can by its use readily counteract tissue waste in typhoid fever, and other conditions where a perfect and readily assimilable food is a demand that must be intelligently supplied, or the patient will constantly lose ground. In fevers and in tuberculosis and marasmus and in all cases where there is waste bovine is indicated and will afford us a valuable remedy. In these cases it can and should be given in liberal dosage. A teaspoonful to a wineglassful repeated often enough to keep the patient nourished and the pulse volume good is the general rule. The physician can and must use his judgment in his directions to the nurse as to the dose. Bovine is, however, not toxic, and no harm can result.

In anemia the editor has for years found bovine the most excellent of all remedies. The patient quickly comes to have better blood and gain of strength than when any other remedy is employed. No preparation of iron can compare with bovine. Iron fails utterly in many cases, and produces constipation and biliousness in others, but bovine will not produce these symptoms, and will speedily increase the strength and improve the blood. In convalescence from disease it is perhaps the best remedy we have, increasing, as it does, the patient's nutrition and overcoming the associated anemia. In the debility and marasmus of entero-colitis, and the anemia of bottle-fed infants, bovine is an agent that has no equal. In incipient phthisis the reports of competent observers go to show that bovine is perhaps the best remedy we possess. It supplies in an acceptable

*From *Modern Medical Science*, November, 1901.

and assimilable form a tissue food which is most valuable. Many patients, some of whom could not take cod-liver oil, readily gained strength when put on bovine. In advanced phthisis it is a most valuable agent in maintaining nutrition, and counter-acting tissue waste. The pulse-beat of consumptives, even when in an advanced state, will improve surprisingly when bovine is taken with regularity.

La grippe leaves in its train a state of debility and impoverishment that is most depressing. In these cases bovine is a remedy that most practitioners have found excellent; it readily repairs the blood and the patient feels invigorated and soon regains former systemic vigor. Bovine, in fact, is indicated where a perfect food is required.

Bovine is largely used in surgical practice, and its employment in this domain is one of the most important uses to which the remedy is applied. It is the most certain of applications to ulcers, and the most aged and rebellious yield to its action. In fistula, gangrene, and abscesses and carbuncles the local application of bovine is prompt in effecting the most happy results known to surgeons. Bovine in these cases is of course to be used after sterilization of the wound by proper means. In ulcerative proctitis the local application of bovine has been found to be especially useful by several eminent observers. In eczema, corneal ulcers, necrosis of the bone, and other conditions, bovine has, in the hands of the ablest surgeons, been demonstrated to be one of the most useful and valuable remedies known to our therapeutics.

Dose: A teaspoonful to a wineglassful, according to the conditions existent in the case in hand. Bovine can be given by a subcutaneous injection or by the rectum.

The Western Ophthalmologic and Oto-Laryngologic Association will hold its Seventh Annual Meeting in Chicago, 1902, April the 10th, 11th and 12th. The place of meeting is to be announced later. It promises to be a successful meeting, both in point of attendance and in the number of papers which will be read.

**THE TREATMENT OF LOCOMOTOR ATAXIA, WITH
SPECIAL REFERENCE TO THE TREATMENT
BY EDUCATIONAL EXERCISES.***

BY JOHN H. W. RHEIN, M.D., PHILADELPHIA.

The general practitioner inclines (and not without good reason) to view patients suffering with locomotor ataxia as hopeless and unsatisfactory ones to treat. A general impression for a long time prevailed that there was no relief from the symptoms which the victim of this disease presented. The severe pain, the inco-ordination, the failure of the bladder and rectum to perform their proper functions, all seem such hopeless symptoms that the physician in general practice is rightly discouraged by the outlook. The treatment I shall describe so radically upsets the routine life of the patient that he is often with great difficulty persuaded of the expediency of the measures prescribed.

Ataxia is a disease requiring a special regime, which must be carried out with great persistence. It will be found necessary in dealing with these cases to speak frankly and honestly about the disease, the prognosis, the results of treatment, in order to control the patients and induce them to undergo the treatment. The tabetic should early learn to be philosophic about his disease, and should be told exactly what to expect. He is more readily governed also in this way as to the future regulation of his life. He requires constant surveillance by his medical adviser, who should watch closely for any deterioration in general health or any tendency to progress in the disease itself. Few patients will continue routine treatment month after month without the careful oversight and direction of a physician, and it is just in this particular that the greatest difficulty exists, and where the physician must exercise constant control. Relaxation in treatment is always followed by a retrograde in the disease. The symptoms from which a tabetic suffers most, and for which he seeks relief, are the difficulty in locomotion; the sharp pains; the constipation; involuntary urination; cystitis; and the various crises, of which attacks of spasmodic cough with husky voice; severe pain in the rectum, bladder or stomach are the most frequent. Patients complain greatly of the various sensory phenomena so often met in locomotor ataxia. Of these symptoms, the most prominent are the numbness in the hands or legs and the girdle pains.

*Read before the Philadelphia County Medical Society, Oct. 23, 1901.

Before discussing with you the general plan of treatment, let me first state what may be expected of the method about to be elaborated. What hope can we give the patient who comes to us seeking relief? It goes without saying that the amount of benefit derived must depend upon the stage to which the disease has progressed. In early cases in which the inco-ordination is slight, the pain insignificant, and the general health but little reduced, the treatment is always encouraging. Even when the ataxia is so great as to require support in walking, or even when locomotion is impossible (if this is not due to paralysis, but simply inco-ordination) most hopeful results may be obtained. The less hopeful cases are those which have gone on to real paralysis due to involvement of the motor columns; though even in such cases Frenkel claims good results. In one of my cases of combined column disease, with much ataxia and a marked degree of muscular weakness, due to involvement of the motor cord, the inco-ordination practically disappeared under the treatment to be described, while the tottering gait which remained was due alone to muscular weakness. I have repeatedly observed patients whose ataxia was so great that they almost fell into my office, or who were practically carried in by their friends, and they under this treatment learned to walk unassisted so well that only the most practiced observer could discover much amiss. I have seen pains lessen in severity, and their frequency greatly diminished, as a result of the improvement in general health. I have found patients to gain remarkably in weight, general strength, and in quality of blood, so that the general *bien-être* was markedly elevated.

The patients gain courage, hope, and become happier and more content. They express themselves as walking more firmly, of suffering less, and appear satisfied with the improvement. Ataxics who have worked up to their limit, unable longer to get about from weakness and inco-ordination, have gone back to their duties with renewed hope and strength. I am accustomed to say to these patients applying for treatment that they have an incurable disease, that the treatment will in all probability stop its progress; that their walk will be steadier; they will grow stronger and stouter; will suffer less from pains; and will in some measure be relieved of the severity of the subjective symptoms. While this is broadly what may be said to them, of course individual cases require some modification in this statement.

The plan of treatment proposed is first to bring the general health of the patient up to its maximum degree of improvement. This is accomplished by absolute rest in bed, combined with massage, electricity, tonics, and overfeeding. Later, after the patient has gotten about, the special exercises designed to re-educate the muscles are prescribed, the patient following at the same time a partial-rest schedule.

A lukewarm to a warm bath is given in the morning before breakfast, followed first by a brisk rub with coarse towels, and then a gentle superficial massage with 50 per cent. alcohol. This not only gives the patient a sense of well-being, but is also instrumental in regulating the digestive functions and in stimulating the general circulation. The bath should be given by an assistant, and a reaction should be certainly established. When the bath is taken unassisted it is apt more often to do harm than good, as the expense of energy required tends to prevent reaction, besides being exhausting. It has been definitely proven that any exercise before breakfast, soon after awakening, has always an injurious effect, even among robust subjects. This has been studied carefully in the German army, where no exercise is permitted before breakfast. Massage is ordered once or twice a day. As to the character of the massage, I strongly advise general heavy movements, with especial attention to the back and legs. In most cases who can afford it, I advise the slowly interrupted faradic current to the principal motor points for an hour. This makes the patient "feel good," and acts as a passive form of exercise, while at the same time serving to stimulate the peripheral nerves. No educational or Swedish movements are given for some time. I like first to give the average patient a month of rest before instituting this part of the treatment.

The diet consists of the usual nourishing foods. Large quantities of milk are ordered, and the patient is encouraged to eat abundantly in the hope to put on weight.

I always study the blood carefully before instituting treatment, and often during its progress, and I thus more intelligently can follow the improvement made.

The time spent in bed varies according to the rapidity with which the patient takes on fat. It is best to increase the weight at least ten pounds if possible before relaxing the absolute rest. With very thin subjects, who are naturally slight, this is often

impossible, but there is always some gain. At the end of a month or six weeks the patient is permitted to get up very gradually, just as in the rest cure, and by degrees he is permitted to remain up longer, increasing the time from day to day. The amount of exercises simply devoted to improving the muscular condition should be limited, however, and governed entirely by the strength of the patient. Frenkel advises against any form of gymnastics during the treatment.

The educational movements are now begun. This phase of the treatment has for its object the improvement of the inco-ordination, and is based upon a plan of re-educating the muscles. This is accomplished by practicing repeatedly certain movements, which are graduated from simple to complicated.

It was Frenkel⁶ who in 1890 first described this new method accepting the theory held by Leyden and Goldscheider that inco-ordination was due to loss of sensation.

It was suggested to him by the fact that a patient was able to perform certain acts, such as touching the nose with the index finger, the eyes being closed, with greater precision after a certain amount of practice. He suggested three different forms of movements: *i. e.*, 1st. Simple muscle movements; 2d. Simple co-ordinated movements; 3d. Complicated co-ordinated movements—all three series of movements to be performed at each seance.

At first this system received but little attention, and it has only been in the last few years that this method has been generally used and elaborated. The system has been variously termed by Frenkel,¹⁰ "Compensatory Uebungs Therapie;" by Raymond,²⁸ methode de "Reéducation des mouvements;" by Hirschburg,¹⁵ Gymastique raisonné (because the patient must understand "le sens" of the movements); by Leyden,¹⁹ Compensatory treatment. The good results are explained as follows: Nerve tissue possesses the quality of retaining impressions made upon it, and these grow stronger with the repetition of the impression, the change thus caused becoming permanent. This re-education of the nerves supplying the muscles affected is necessary because the subjects have practically forgotten which muscles are required in performing certain movements. It is essential that the patient shall possess a certain degree of intelligence, patience and power of concentration; in fact, the prognosis depends upon these qual-

ities. In 1895 Frenkel⁷ described the application of this method directed to the education of the hands, by means of drawing various shaped lines, placing pegs in holes in a board made for their reception, and similar exercises. This method was also applied by Hirschburg¹⁵ in 1893 to the correction of inco-ordination in the hands. Again, 1896, Hirschburg¹⁵ added to the literature of the subject of the reëducation of the muscles in ataxics, and called attention to the modification in the perception of the sense of fatigue. In the first stage of the disease fatigue is felt soon after exercise, and out of proportion to the amount of muscular force used. Later, an anesthesia of this sense develops, and after long-continued exercise the patient does not experience fatigue. In a third class of cases muscular lameness comes on the next day after exercise, lasting twenty-four to forty-eight hours. These facts must be remembered in estimating the amount of exercise to be taken. Frenkel⁸ described a case in which the sense of fatigue was so reduced that the patient was able to hold out his arm for twenty-five minutes without feeling fatigued in the least, and I have repeatedly seen patients who were able to go about all day long, resting a little or not at all, and using up a great deal of muscular force without feeling tired. Frenkel¹² has called attention to the fact that the muscular system is generally relaxed in this disease, so that the limbs are capable of being placed in positions commonly attributed to contortionists, a condition spoken of by Hirschburg¹⁶ as hypotonis of the muscle. This condition has, in my experience, greatly improved under rest, massage and application of educational movements, as advised in this paper. Frenkel,¹⁰ while acknowledging the great benefit of baths in the treatment of ataxics, advises against combining them with this treatment.

Improvement goes on from the first, with varying rapidity, depending upon the persistence of the exercises, the attention paid to their performance, the general health, and the degree of ataxia. Maurice Faure⁹ has found improvement to continue up to a year, though the maximum improvement is usually reached at the end of three months. He suggests, in order to retain the good results, to devote two periods yearly to teaching the patient how to perform the educational movements. He believes that a favorable prognosis may be given in cases in which the symptoms have remained stationary for a certain period. A

great many exercises are described by Goldscheider¹⁸ in his book entitled *Anleitung zur Uebungs-Behandlung der Ataxie*, 1899. This treatment is more completely set forth in this work than any other on the subject. He recommends the following movements, which are especially useful in training the legs to walk properly: The patient lying on his back in bed, the thigh is flexed on the abdomen while the leg goes through an exaggerated stepping movement. One leg is thus exercised, and later the movement is practiced with both legs alternately. A similar exercise is done while the patient sits in a chair. They are done to counting, and care is observed to prevent any irregularity in the movements in the leg, such as deviating to one or the other side, or any tendency to jerky movements.

Goldscheider proposes an apparatus for advanced cases which supports the body under the arms, and is supplied with four wheels in such a manner as to move readily as the patient walks.

To describe all the different exercises would make this paper too long. I shall describe, however, a sufficient number of the most important ones to give some idea of the method.

The patient walks heel and toe along straight lines drawn on bare floors; later, curved lines, spiral lines, etc. A very useful and difficult exercise is to raise the leg as high as possible, flexing at the knee, then extend it forward, bringing the toe down first to a point a pace in front of the other foot, and to continue progressing in this fashion. This is done slowly, regularly, and preferably by counting one to four in lifting and one to four again in lowering the leg. The patient is taught to stand with feet apart, eyes open, then closed; later, with the feet together. The patient takes one step forward, then the foot is brought to the original position. Later two to four paces are taken.

As the inco-ordination improves more difficult tasks are given. For instance, the patient balances himself on one foot, and with the other touches designated places on a stool with the toe, bringing the foot to the original position after touching each one of the places pointed out. In the sitting position, with a chair placed in front of him, the patient touches with alternate toes various parts of the rounds of the chair in front. These movements are all done very slowly, with great concentration and to counting, the last assisting greatly in keeping the attention of the patient. The patient rises slowly from the chair without assisting himself by his hands, then reseats himself.

The patient is taught to walk over obstacles placed on the floor, such as blocks of wood, which may be arranged in lines, straight, curved, and in various directions. Going up and down stairs slowly and carefully is a very excellent exercise.

Those who desire a greater detailed account of the various movements will find them described by Dana (*Post-Graduate*, 1896, ii. p. 275), who has published an excellent schedule, based more or less upon those of Frenkel and Hirschburg.

In a later paper I mean to publish a list of movements which I have found most useful.

The exercises should be done two or three times daily, and it is preferable that the physician should be present, certainly at first, and especially when the fatigue sense is lowered. The results are permanent if the general health remains good and the exercises are persisted in. As contraindications to this treatment, Hirschburg¹⁵ claims those cases in which symptoms develop under two years, when the general state of the health is poor, or when the articulations are affected.

Raichline²² considers those cases with slow progress favorable. He states that sensation should not be absolutely lost, that arthropathies and spontaneous fractures should not be present, that those cases of rapid progress with symptoms of irritation contraindicate the treatment.

He points out the importance of the degree of intelligence of the patient and the view of the case taken by him. Raymond²³ gives obesity and drug habits, Grassett¹³ fragile bones and heart lesions as contraindications. Blindness is also a contraindication, for vision is essential in the performance of the exercises. The patient must be intelligent and capable of concentration. Caution must be observed in those cases showing symptoms of irritation of the cord or roots, the so-called meningeal type of the disease.

The treatment of tabes by mechanical means has been practiced in various ways since Langenbuch (1878) stretched the nerves in a case of supposed ataxia. In 1883 Motschutkawski proposed suspension; later, Bonuzzi and Blandel stretched the body by placing it in certain positions; then Hessing proposed plaster-of-paris jacket to stretch the spine.

It is very important to see that the digestive functions are properly attended to. Torpid liver alone in a great many cases

causes outbreaks of the lancinating pains. I have seen some remarkable results with calomel in such instances, the pains disappearing after the administration of this drug. A coated tongue, or constipation, also frequently induces the pains, which cease after these have been corrected.

The spasmodic cough which is so frequently encountered is often very difficult to relieve. These attacks yield, though not always, to combinations of antipyrin or acetanilid, cannabis indica, and codeine. When they are very intense and prolonged, amyl nitrite and morphine alone are effective. The rectal crises, when present, are very annoying and persistent, and offer great resistance to treatment. The above combination may be used here with relief. I have in several cases most effectually relieved this symptom by dilating the rectum, either with a speculum, a probang, or sometimes simply by the use of the fingers. It is amazing what relief follows this measure.

The bladder needs attention in many cases. It is very important to be sure that there is no residual urine in the bladder in those cases suffering from incontinence or retention. The bladder should be frequently catheterized and washed if there is indication of cystitis. These measures also are of great assistance in the treatment of the bladder crisis.

The pains of the ataxic are often agonizing and persistent, baffling all attempts to relieve them, and often drive one finally to the administration of morphine, which, however, should be the *dernier resort*. A hot bath, followed by wrapping the affected parts in warm blankets, is very effective, associated in more persistent cases with such a combination as I advised above for the spasmodic cough. The pains are sometimes neurasthenic in character, when the general treatment prescribed has a beneficial influence upon them. Sometimes the pains are increased by the movements, requiring the greatest caution in the management of the case.

Beer² refers to the physical aspect of the pains and their relation to the general nutrition. He believes that the pain in the majority of cases is peripheral, and claims that the painful condition of the joints is due to lack of sensory control, increased innervation of the joint resulting. He proposes a light plaster jacket for the body and a bandage for the joints, the former not the Hessing jacket, having for its object the stretching of the

spinal cord, but one simply to prevent motion of the spine. He advises against the use of the cane, believing that ataxics should not depend upon external support. Erb suggests, among the usual measures for the relief of pain, blisters and cauterizing points.

As to the use of potassium iodide, it has been in my hands of very little value in the general run of patients. I have failed to see any positive results from its administration, except in selected cases. I believe it has no use in those cases of tabes with specific history in which the treatment has been thorough and satisfactory. If, however, there has been any flaw in the treatment of the original specific attack, I always give a thorough course of iodide. It has had such a deleterious effect on the digestion in those cases in which I have previously as a routine ordered it that I avoid its use as much as possible. It is not indicated in the old cases.

Leyden and Goldscheider¹⁹ advise the use of mercury only where the diagnosis lies between tabes and specific cerebro-spinal disease in such cases in which, besides symptoms of tabes, those of cerebral spinal syphilis exist. Erb⁴ believes specific treatment advisable in: 1. All early cases with symptoms of tabes in which the syphilitic symptoms are not yet very remote. 2. In cases in which the "floride" symptoms are not yet present, or symptoms of cerebral or meningeal syphilis complicated. 3. Cases in which insufficient specific treatment has been instituted.

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The Sixth French Medical Congress will be held at Toulouse during the Easter holidays, 1902, under the presidency of Dr. Lemoine, of Lille.

A Curious Case of Latent Renal Lithiasis.—In *Médecine Moderne* (July 17, 1901, No. 29) Dessirier and Legrand report an interesting case of latent renal lithiasis in a soldier aged 21, who had been in an infantry regiment but three months. He was suddenly overcome by fatigue while marching, and had some epistaxis. He had had lumbago for several years, off and on, and drank three liters of wine every day. Examination revealed nothing abnormal. The urine contained a little albumin. He was doing well when a week afterward he began to urinate frequently, and edema appeared in the cheeks and ankles. There was some dyspnea, galop rhythm was noted, and the diagnosis of acute nephritis was made. He died in syncope a week after the first symptoms appeared. Both kidneys were found filled with calcium oxalate of all sizes, some as big as a pigeon's egg, weighing 20 g., numbering in all over 500. The left kidney was hypertrophied, the right small and sclerotic. The heart was dilated and showed some myocarditis. He had never had nephritic colic or hematuria. His heart, unable to withstand the exaggerated tension of the entire circulatory system, dilated, and finally caused death in syncope. Renal insufficiency was only noted after he left his sedentary life to become a soldier. Outside of alcoholism, there is no cause known for the occurrence of calculi in this case. [M. O].—*Phila. Med. Jour.*

THE TREATMENT OF DIABETES.

BY CHARLES W. M'INTYRE, M.D., NEW ALBANY, IND.

Diabetes is an affection far more commonly seen than is supposed by many physicians. The truth is a study of vital statistics and interrogatories sent out to the most active practitioners has established in the writer's mind the view that diabetes is a disease seen far more frequently than text-books would lead us to believe.

The treatment of diabetes is commonly considered under two heads—the *dietetic* and the *medicinal*.

Sugar and all starch-containing foods are to be eliminated from the dietary of diabetic patients. Saccharine and glycerine will in a reasonable measure replace sugar. Potatoes, rice, flour, beans, peas, turnips, grapes, plums, apricots, pears, apples, melons, berries, figs, beets, onions, asparagus are all to be avoided by these patients. Champagne, the sweet wines, and cider and beer are never to be used by a patient who is ill of diabetes. I must not omit saying that the following foods are only partaken of with injury to our patient: These are liver, crabs, lobsters and oysters, thick gravies and soup. The market is full of diabetic foods, which are purported to be pure gluten products. I am sure that the claims of these foods are not at all times what we are led to believe, but they do serve our purpose better than ordinary bread, and are therefore to be advocated. This conclusion is reached after we have seen that the demand for bread can not be replaced for a long period as the necessities in a case of diabetes make necessary.

Among the foods allowed are the meats ordinarily found in meat shops. Game, poultry, fish, clams, eggs, bacon, butter, cream, cheese, nuts, spinach, tomatoes, cabbage, cauliflower, lettuce, cucumbers and pickles, gluten, tomatoes, brown and almon-meal bread, clear soups, lemons, tea, coffee and cocoa are all foods which will be the main articles in the dietary of the diabetic patient.

Lockwood wisely advises that the diabetic patient be brought gradually to a correct diet. An abrupt leaving off of customary diet is often manifestly a means of doing harm.

Of remedial measures there are at present only two remedies which are regarded with favor by the profession in general.

These agents are opium and arsenauro.

There is no doubt in my mind that opium is of value in diabetes, but there are two reasons why he has not employed it for some years.

In the first place, opium produces constipation. It is a fact that these patients suffer greatly with constipation, and often when the opium is given we shall see some of the worst cases of constipation. One of my patients said that he would not continue the treatment unless I could give him some remedy that would not produce such obstinate constipation.

My other reason for quitting opium is the fact that I have found in arsenauero a remedy which does not possess any disagreeable drawbacks, but which produces the most satisfactory results in these cases. I have treated a great many cases of diabetes with arsenauero, and my results have been excellent and the percentage of recoveries have surpassed that by any other therapeutic means.

I give the arsenauero in doses of five to ten drops after each meal. I usually begin with doses of five drops and increase gradually to fifteen drops.

Under arsenauero the appetite improves and the patient begins to have a better color and be better in every way.

A man, aged 39, came to my office, saying that he was passing a large amount of urine, and he was growing weaker and that his weight had fallen off greatly.

Repeated examinations of the urine showed that the patient had diabetes. I put him at once on a corrected dietary and had him begin with arsenauero. He was a good patient and made a speedy recovery, which occupied in all four months. The patient now enjoys good health and is daily attending to his business, that of a merchant.

A Jew, aged 49, came to my office for treatment of diabetes. He had only lately come here from Germany and while there had been treated with opium, and this produced the most pronounced constipation and biliousness. I had this patient take arsenauero and observe a proper diet. On this treatment he began to feel better, pass less urine, and the sugar diminished continually and he made a complete recovery. This patient was under treatment in all about three months.

A woman, aged 37, was treated for diabetes, which had been present for the past two years, but only in the last six months

had the associated debility caused her to complain. On a correct diet and arsenauro this patient made great headway in regaining her strength. She had gained flesh and was a great deal better when she left here, and I have not heard from her for two months, but at which time she was thought entirely well.

A patient, aged 57, had diabetes and had been a sufferer for eighteen months, when he came under my observation. He was given a correct diet and arsenauro in the usual way and made steady improvement and was dismissed cured in three months.

The Nathan Lewis Hatfield Prize for Original Research in Medicine.—The College of Physicians of Philadelphia announces through its committee that the sum of five hundred dollars will be awarded to the author of the best essay in competition for the above prize.

Subject: "The Relation Between Chronic Suppurative Processes and Forms of Anemia."

Essays must be submitted on or before March 1, 1903.

Each essay must be typewritten, designated by a motto or device, and accompanied by a sealed envelope bearing the same motto or device and containing the name and address of the author. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if reclaimed by the respective writers or their agents within one year.

The committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

The treatment of the subject must, in accordance with the conditions of the trust, embody original observations or researches or original deductions.

The competition shall be open to members of the medical profession and men of science in the United States.

The original of the successful essay shall become the property of the College of Physicians.

The trustees shall have full control of the publication of the memorial essay. It shall be published in the Transactions of the College, and also when expedient as a separate issue.

Address, J. C. WILSON, M.D., *Chairman*,
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CORRESPONDENCE.

A CASE OF CONTAGION OF LEPROSY OCCURRING IN THE UNITED STATES FROM CLOTHING IMPORTED WITH NORWEGIAN IMMIGRANTS.

NEW YORK, Jan. 14, 1902.

DEAR DR. OHMANN-DUMESNIL:

I send you this original clipping from *Lepra-Archives* of an opinion of Dr. A. Sand of Trondhjem, Norway, on a case of leprosy contagion of a Norwegian leper, whose first symptom showed in Chicago.

Dr. Ehlers kindly sent it to me. He is the editor-in-chief of *Lepra-Archives*, and the clipping is from IV. Heft, 1901. Dr. Ehler was the Secretary-General of the Berlin Lepra Conference, and I take this opportunity of thanking him for his courtesy in thus calling our attention to what is of great importance to America. Will you please publish the article written in French and with your own translation (not mine) right after it?

Very truly yours,

ALBERT S. ASHMEAD, M.D.

(*Lepra-Archives*, 1901, IV., Heft.)

[HERRN DR. MED. EHLERS,

Kopenhagen, K,

Laxegade, 6.]

"CORRESPONDENCE.

"SAND: Quelques remarques sur le travail de T. C. Booth: La Contagiosité de la Lèpre (*Brit. Med. Journal*, 11 Août, 1900).

"L'auteur y décrit un cas de lèpre, qu'il a observé dans la léproserie de Reitgjærdet (Drontheim-Norvège) dont j'ai l'honneur d'être le médecin directeur.

"C'est un homme, âgé de 38 ans, qui à l'âge de 21 ans émigra du district de Christiania aux Etats-Unis de l'Amerique de Nord. Après un séjour de 7 ans dans un district de fermes à l'intérieur du pays il devint lépreux, mais son état actuel: Cécité, les pieds, les jambes, les bras et le visage attaqués ne s'est développé ou n'a

été reconnu qu'il y a 10 ans. Il ne connaissait aucun cas de lèpre ni dans sa famille, ni dans le district d'où il avait émigré; mais il avait fait venir—comme de coutume—des vêtements de la Norvège, qui lui furent apportés par d'autres émigrés.

“Je regrette beaucoup de ne pas avoir été présent lors de la visite de Mr. Booth, ici, à mon asile; mais l'observation précitée par le malade s'accorde assez bien avec la déclaration faite devant moi quant à ce qui touche l'histoire de la maladie, mais quant aux relations familiales, on ne connaît aucun cas de lèpre dans sa commune natale, Brandvold à Solør, tandis qu'il est bien loin d'être certain, qu'il n'y a pas de lépreux parmi les immigrants Norvégiens du district Américain, dans lequel il avait élu domicile. Les conclusions, qu'en tire Mr. Booth, qu'il faut croire, qu'il a apporté avec lui le bacille en quittant la Norvège et qu'il en a été porteur depuis cette époque, ou bien qu'il l'a reçu plus tard des vêtements envoyés de sa commune natale (où on ne connaît point de lépreux)—ces deux conclusions sont admissibles; une latence de la maladie pendant 7 ans est regardée comme possible; mais je ne dissimulerai pas, que je suis disposé à croire, qu'il a gagné la maladie aux Etats-Unis.

“D'après sa propre déclaration faite devant moi lors de son admission à l'asile et affirmée encore aujourd'hui sur ma demande expresse, il n'emigra point, dans un district de fermes à l'intérieur du pays, mais directement de la Norvège à Chicago, où il séjourna sans interruption pendant 12 ans, gagnant sa vie comme charpentier. Les 6 premières années, c'est-à-dire jus qu'à un an avant l'éclosion de la lèpre il logea tantôt ici, tantôt là, dans les hôtels garnis (boarding-houses), presque toujours au milieu d'émigrants Norvégiens, avec les quels ils partagea souvent sa chambre; les compatriotes provenaient de différentes contrées de la Norvège.

“Il serait trop long d'insister d'avantage, sur la description du Dr. Booth relative à la façon de vivre de la population pauvre expliquant l'extension de la lèpre. D'après ma connaissance de ces conditions de vie je doute qu'elles soient pires qu'en Irlande par exemple.

“Vers la fin de l'article Mr. Booth mentionne comme source de contagion possible le fait, que les malades à l'asile de Reitgjaerdet sont en partie occupés à carder la laine, sans qu'il se soit donné pourtant la peine de vérifier, comment nous traitons

de désinfections ultérieurement cette laine. Je m'empresserai donc de dire, qu'on file aussi cette laine, chez nous et que notre fabricat de fil de laine est mis dans de l'eau bouillante de savon vert pendant $\frac{1}{2}$ heure, après quoi, on le lave dans cette solution, pour le rincer en suite dans de l'eau bouillante, avant de le livrer au commerce. Pendant les 40 ans de fonctionnement de notre asile nous n'avons jamais pu constater aucun cas de contagion de la lèpre ni à l'intérieur ni aux environs de l'asile."

[NOTE BY DR. ASHMEAD.—Dr. H. P. Lie in 3d Vol. Transactions Berlin Lepra Conference, article *Geographic der Lepra in Norwegen*, says: "Im östlichen Theile Norwegens an der Grenze von Schweden ('Elverum,' 'Sölor,' 'Oclalen') finden sich auch einige Lepra fälle, deren Anzahl jedoch nie sehr bedeutend gewesen ist. Mit der Lepra der West Küste Köunen diese Fälle sehr schwer in Verbindung gesetzt werden, denn die Bauern dieser Gegend haben Keinen Verkehr mit den Bewohnern der West Küste. Mit dem Nachbarlande Schweden dagegen is der Verkehr in dieser Gegend ganz lebhaft, und die Quelle dieser Lepra fälle ist Möglicher Weise in Schweden zu Suchen, wo die Lepra nicht unbedeutend ist obwohl lange nicht so häufig wie in Norwegen."*]

In my appeal to Congress for a national leper law I have quoted two second generation Norwegian-American lepers. One whose leprous mother was a weaver of carpets for twenty years for an American community, and the other whose father and mother were not lepers.—A. S. ASHMEAD.

The following is a translation of the foregoing:

"To DR. EHLERS,

"Copenhagen, K,

"Laxegade, 6.

"CORRESPONDENCE.

"SAND: A few remarks on the paper of T. C. Booth, 'The Contagiousness of Leprosy' (*Brit. Med. Jour.*, Aug. 11, 1900).

"The author here describes a case of leprosy which he observed in the leper-house of Reitgjærdet (Drontheim, Norway), of which I have the honor of being the medical director.

"It is concerning a man, 38 years old, who at the age of 21 emigrated from the district of Christiana to the United States. After a stay of seven years in a farming district in the interior

*Auf dem Congressse Werden Zwei Karten demonstirt welche die Details über die geographische Ausbreitung der Lepra in Norwegen Zeigen.

of the country, he became leprous, his present state blindness, the feet, the legs, the arms and the face attacked—not having developed or been recognized before ten years ago. He knew of no case of leprosy either in his family or in the district from which he had emigrated; but he had caused to reach him—as is customary—clothing from Norway which was brought to him by other emigrants.

“I very much regret not to have been present upon the occasion of the visit of Mr. Booth here, at my asylum; but the observation aforementioned by the patient agrees well enough with the declaration made before me, so far as the history of the disease is concerned; but as to family relations, no case of leprosy is known in his native commune, Brandvold à Solør, whilst it is far from being certain that there are no lepers among the Norwegian immigrants of the American district in which they had elected to make a home.

“The conclusions drawn by Mr. Booth from this, which would lead us to believe that he has taken with him the bacillus in leaving Norway and that he has carried it since that time, or else that he has later on received garments sent from his natal place (where no lepers are known to exist)—these two conclusions may be admitted; a latency of the disease for seven years is looked upon as possible; but I will not conceal the fact that I am inclined to believe that he acquired the disease in the United States.

“According to his own account, made to me on his admission to the asylum and reaffirmed to-day at my special request, he did not emigrate to a farming district in the interior of the country, but directly from Norway to Chicago where he lived without interruption twelve years, earning a living as a carpenter. The first six years, that is to say up to one year before the manifestation of the leprosy, he lodged here and there, in boarding houses, almost always in the midst of Norwegian emigrants, with whom he often shared his room. These compatriots hailed from different parts of Norway.

“It would take too much time to dwell upon the description of Dr. Booth regarding the manner of living of the poor population as an explanation of the spread of leprosy. From my own knowledge of those conditions of life, I doubt that they are worse than those in Ireland.

"Towards the end of the article Mr. Booth mentions as a source of possible contagion the fact that the patients in the asylums of Reitgjærdet are partly occupied in carding wool, without his having taken the trouble to verify how we treat and ultimately disinfect this wool. I will make it a point to say that this wool is also spun among us, and that our product of spun wool is placed in boiling water containing green soap for a half hour, after which it is washed in that solution, to rinse it subsequently in boiling water, before delivering it to commerce. During the forty years of existence of our asylum we have never been able to note a case of contagion of leprosy either inside of nor in the neighborhood of the asylum."

[NOTE BY DR. ASHMEAD.—Dr. A. P. Lie, in Vol. III. Transactions Berlin Leprosy Conference, article, *Geographie der Lepra in Norwegen*, says: "In the eastern part of Norway, on the boundary of Sweden (Elverum, Sölor, Oclalen) are found some cases of leprosy, whose number has never been considerable. These cases can be connected with the leprosy of the west coast with great difficulty, as the peasants of this locality have no relations with the inhabitants of the west coast. The neighboring country of Sweden, on the other hand, is quite lively in its intercourse with this part, and the source of these cases of leprosy is most probably to be sought in Sweden, where leprosy is not unimportant, although not so common as in Norway.*

The First Thermometer.—The first sealed thermometer was made sometime prior to 1654 by Ferdinand the Second, Grand Duke of Tuscany. He filled the bulb and part of the tube with alcohol, and then sealed the tube by melting the glass tip. There appears to be considerable doubt as to who first employed mercury as the thermometric liquid; the Academia del Cimento used such an instrument in 1657, and they were known in Paris in 1659. Fahrenheit, however, appears to have been the first to construct, in 1714, mercury thermometers having trustworthy scales. The use of the boiling point of water was suggested by Carlo Renaldini in 1694.—*The Engineer*.

*Two maps were demonstrated to the Congress which showed the spread of leprosy in Norway.

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A. H. OHMANN-DUMESNIL, A.M., M.D.,
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EDITORIAL.

ENFORCED PRECOCITY.

The times of to-day are noted for the vertiginous rapidity with which everything is done. The forcing process is used at all times and upon all occasions for all purposes. There is no avocation, trade, condition, or occupation in which this forcing is not indulged. Rapid results seem to be the universal demand and the cry is for them. People are no longer content to wait patiently for what would ordinarily be called the time necessary to attain a conclusion; time is too valuable to squander in this manner, more especially since it has come to look upon it as money. Time lost is time wasted and the less lost the more profitable to him who economizes it. These conditions have not suddenly come upon us. They have been of slow and progressive formation, and it is this very fact of a slow growth and from it that it has gained so much strength. So much strength has it gained that it cannot be destroyed, and every time it has been pressed to earth it has gained fresh vigor.

One of the results of this furious haste and desire of losing no time has been the fostering of rapidity at the loss of exactness and a consequent weakness in strength. Like the overtraining of an athlete, it is very apt to result in a complete and unlooked-for breakdown. Such is the natural consequence of the overstrain which is encouraged and fostered by those whose shortsightedness will not permit them to peer sufficiently far into the future to foresee a natural consequence. This is not only a condition existing among those of to-day, but it is one which is forced upon future generations. It is manifested in the way of producing precocity. This precocity is not in the way of making men out of boys or women out of girls. It is rather in the way of teaching them arts of a dubious nature and tricks that are not manly or womanly, and thus depriving them at an early age of those qualities which are most admired and admirable.

Instead of developing into normal human beings, whilst still mere babies almost, they are filled with vanity, are selfish to a degree, are gossips, and in fact have all the petty faults of their elders and no redeeming traits to offset them. The hothouse methods in vogue tend to foster such a state of affairs and bring about a precocity that is enforced by the parents. It is nothing strange to hear nowadays people say that girls of twelve know more than their grandmothers of subjects which formerly were a sealed book in all decent families. It is notorious that boys are graduates in vice before the down has appeared upon their upper lips, and they glory in their moral filth. Such states of moral degradation are the result of enforced precocity, and the end can only be one—degeneration. Max Nordau did not quite cover the entire subject when he spoke of degenerates. He might have gone further and laid his finger upon a moral and social sore, which is to-day in evidence everywhere, exhibiting its hideousness with a brazen effrontery which causes a shudder to pass through every right-minded and upright individual.

The cure for this lies in the hands of the family physician. He must repress the tendency to goad on children to precocity. He must suppress demoralizing literature in the family circle, and he must encourage and foster the proper nursing of childhood as such and limit children to the sights, words and thoughts adapted to their age. With the seconding of parents it is easily accomplished, and the result cannot be other than the oncoming of a

better, stronger and more moral generation. We all owe this much to the present young and to future generations yet unborn. We cannot afford to permit degenerates to grow up in our midst. Forced precocity must be pruned vigorously, and all the distorted and unhealthy branches removed. A great portion of the responsibility for this lies in the hands of the medical profession and the task is before it. When will it begin to do its duty?

MISSOURI STATE MEDICAL ASSOCIATION.

The next annual meeting of the Missouri State Medical Association is to be held at St. Joseph, May 20, 21 and 22, 1902. We are promised with a large and successful meeting, and from present indications this promise will be successfully carried out. All due preparations have been made to attain this object, and officers of the Association have been unusually active. The Committee on Scientific Communications is ready to receive the titles of papers which are to be read at the coming meeting of the Medical Association of Missouri.

Essays being limited to twenty minutes for reading, it is hoped by the Committee that members will be able to condense their subjects so that they can be read within the time limit, for in no other way will it be possible to do justice to the large number of valuable papers which will be presented.

The Committee will classify subjects or topics, and arrange them in groups, and thus discussion, while it will be concentrated, will be more full, and cover more ground.

SPECIAL NOTICE.—In order to facilitate discussion, the Committee would strongly urge each contributor to the programme to prepare a brief synopsis of his paper, not to exceed one hundred words, stating the subject of the paper, or the special points which the author expects to bring out.

In order to give ample time to prepare the programme, titles and synopses of papers should be in the hands of the Committee not later than April 1, 1902.

The Committee consists of:

DR. B. E. FRYER, Chairman, 520 East Ninth Street, Kansas City.

DR. J. H. DUNCAN, Century Building, St. Louis.

DR. M. B. OVERHOLZER, Harrisonville.

The city of St. Joseph is one accustomed to handling conventions and hotel accommodations are ample, so that no fear need

be entertained on that score. Railroad facilities are good, and it is a point which may be reached comparatively easily. Without doubt the best road which enters St. Joseph is the Burlington, and all members who can do so will avail themselves of the facilities which it offers. From St. Louis the Denver limited may be taken, and the ride to St. Joseph is delightful. The usual convention rates on railroads will prevail for this meeting as they have done in the past.

The Medical Director of the Louisiana Purchase Exposition.—The important post of Medical Director of the St. Louis World's Fair has been filled by the appointment of Dr. Leonidas H. Laidley. Dr. Laidley was born at Carmichaels, Pa. He was educated with a view to the medical profession, and entered Cleveland Medical College in 1866. The following year he entered the Jefferson Medical College at Philadelphia. After graduating in 1868 he practiced medicine with his father and brother, and then went to New York, where he entered Bellevue Hospital Medical College and took a higher and more thorough course, being graduated with distinction in 1872. Coming to St. Louis the same year, he entered upon a successful career both as a practitioner and medical teacher, showing always a decided love for the humanitarian side of his profession.

He helped to organize the Young Men's Christian Association, and attending the sick applying to that institution for aid. He organized the free dispensary which became the nucleus of the Protestant Hospital Association. He filled the chair of anatomy and chemistry in the Western Dental College of this city, and after the organization of the St. Louis College of Physicians and Surgeons was called to the chair of surgical diseases of women. After filling that post for years he was called to the same chair in the Beaumont Hospital Medical College, and upon its consolidation with the Marion-Sims College, forming the Marion-Sims-Beaumont College of Medicine, he was made Professor of Gynecology and Pelvic Surgery. In addition, he is surgeon to the Protestant Hospital, consulting surgeon to the Female Hospital, and a leading member of the St. Louis Medical Society and other medical organizations. He was delegate to the British Congress in 1868, and while abroad visited the hospitals of the principal cities. When the Louisiana Purchase Exposition Company was organized he was one of the incorporators.

SOCIETY PROCEEDINGS.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, December 3, 1901.

JOSEPH COLLINS, M.D., President.

Dr. M. Allen Starr presented a woman who had been brought to him by her family physician, Dr. Bush, on November 1, 1900. She had been perfectly healthy before this illness, and there was absolutely no history of specific disease. On July 1, 1900, she had been exposed to a very intense heat, and suddenly after this she had had a general convulsion. She had been ill after this for two or three days, and had then recovered, but the convulsion had been repeated two weeks later, and she had had them at intervals of two weeks to a month up to the time of coming to him. During this period she had lost flesh and strength, and had suffered from dizziness and impairment of vision. In October, 1900, the left side of the body had become distinctly weaker. Her husband was quite positive that the convulsions were usually limited to or were much greater on the left side of the body. The attack began with numbness in the finger and thumb of the left hand; then a closure of the hand occurred, after which the numbness extended up to the forearm and arm, and the forearm became flexed and the arm abducted. Lastly, there was a shaking. The numbness would extend up to the shoulder, and then she would lose consciousness. After that the leg would become convulsed, and the left side of the face would twitch. On examination, he had found no strabismus or apparent paralysis of the face or tongue. The left hand was weaker than the right, as shown by the dynamometer. The left knee jerk was increased, and there was some numbness in the hand as compared with the other side. She had suffered a good deal from headache. When seen a month later the attacks were more frequent, so that she was having as many as eight in a day, and the headaches were more severe. When seen again in January the attacks still continued, but were not quite so severe, and she did not lose consciousness. She was losing about half a pound of flesh a week. The difference in the two hands by the dynamometer was represented by 40 and 60, as they had been at first. Operation had been repeatedly urged by him, but consent had not been ob-

tained until March 19, 1901, when her condition had been much poorer, and there was a beginning of optic neuritis. She had been sent to Dr. A. J. McCosh, at the Presbyterian Hospital. It was thought that the lesion was located in the middle third of the motor zone, in the posterior central convolution, and an incision was made in accordance with this view. The operation was done under chloroform, a horse-shoe incision being used. The skull was sawn through and the brain exposed. On lifting up the flap of bone it was evident that there was some thickening of the dura. The dura was reflected, but was nowhere found to be adherent. Posterior to the fissure of Rolando and occupying the middle third of the posterior central convolution, the brain surface was yellow, and was markedly destitute of blood vessels. It was evident that this discolored mass was a tumor lying upon the brain. It had a thin capsule, but was carefully separated from the brain tissue. In the anterior, however, it was not limited by a capsule. On removal the mass measured one inch anteroposteriorly and one and one-fourth inches vertically, and was one inch thick at its thickest point. There was a smooth external surface, but it was nodular internally. On section it was hard and not at all vascular. The cavity in which the tumor had lain was lined by compressed convolutions, but at the bottom the tumor invaded the white matter. There was no hemorrhage from the pia, and the pulsation of the brain quickly returned. She made a rapid and uninterrupted recovery from the operation. Immediately after the operation there had developed a hemiplegia of the left face, arm and leg. This had gradually passed off, and there was now nothing left of it except a slight weakness of the hand. She had been entirely free from the attacks since the operation, and had been free from headache and had gained about twenty pounds in weight. At the present time there was an intention tremor and an athetoid movement in the left hand. On the left side tactile sensation, and temperature, pain and muscular sense were all impaired to about the same extent. She was not able to determine by the feeling the nature of many objects when grasped by the left hand, a condition that had not existed before the operation. The knee jerk had increased upon the left side. The optic neuritis had entirely disappeared. The hemiplegia he would ascribe to the tearing of the brain during the operation. The tumor proved to be a sarcoma.

INTENSE FLUSHING OF THE FACE.

Dr. Edward D. Fisher presented a man of twenty-two, who from the age of sixteen had had periodical attacks of intense flushing of the face, sometimes in the form of a distinct red band. It never extends farther down than the chest. He is dull and stupid at these times, although he has never lost consciousness or had a distinct epileptic attack. It was not connected with nervousness or emotions, and resembled erythromelalgia. Iodide and bromide of potassium were the remedies that had given the greatest relief. The man's habits were excellent, and he is largely in the open air, being a carpenter.

Dr. W. M. Leszynsky said that he had seen two patients with a similar disturbance of the cervical sympathetic as a result of excessive coffee drinking.

Dr. Joseph Collins suggested that the man be given half a drachm of fluid extract of cascara sagrada every night for two weeks, with no other treatment whatever. The affection was evidently a localized vasomotor paresis confined to the cephalic area which had been proven to be in connection with disturbance of the lower intestine. He was not inclined to look upon this as a serious disorder, but rather as originally a toxemia, and secondarily a bad habit.

Dr. Fisher said that he had had the patient under his observation for two years, and this explanation did not seem to him to meet the case.

Dr. Joseph Fraenkel said that he had had a patient under observation for several weeks at one time, and Dr. C. L. Dana, who had also seen the patient, had been of the opinion that it was a vasomotor paresis arising from intestinal toxemia. There were also some neurasthenic symptoms directed to the sexual sphere.

Dr. Fisher said that he had treated the boy at first on the basis suggested by the last speaker, but further observation had led him to think this was a mistake.

TUMOR OF CEREBELLUM INVOLVING THE ABDUCENS NUCLEUS.

Dr. M. G. Schlapp presented a man, twenty-one years of age, who had come to him about six weeks ago. There was no tuberculosis in the family, and he had had no syphilis. About two years ago he had first noticed that at times he would become dizzy, and that this would be followed by headache and vomiting. Shortly after this he had fallen out of a wagon, and since then the left side had grown weaker. Examination of the eye showed choked

disk, weakness of the left leg and an ataxic gait. The ataxia was most marked in the left leg; the knee jerks were absent; the plantar and abdominal reflexes were present; the pupils were equal and reacted to light; there were no sensory disturbances. A week ago he had developed a disturbance of the conjugate movement of the eyes, which had disappeared in two days. The convergent reaction was, however, all right. He had made a diagnosis of a tumor involving the anterior part of the left side of the cerebellum, and in some way affecting the abducens nucleus.

TUMOR OF POSTERIOR CENTRAL CONVOLUTION.

Dr. Schlapp also presented a woman, forty-one years of age, a Bohemian cigar maker. She enjoyed good health up to five years ago. At that time she had fallen down stairs and had sustained some contusions, including one on the left side of the head. Subsequently the right arm and shoulder had become the seat of twitchings, and there were attacks of loss of speech. After three years they had extended over the shoulder, neck, to the face and tongue. At first these attacks had occurred once in two weeks, but recently there had been many in a day. Later she had also suffered from intense shooting pain in this limb. He had made a diagnosis of a tumor in the posterior central convolution extending back into the parietal lobe. There was astereognosis and impaired tactile and muscular sensibility on the affected side. Pain and temperature sense were not specially disturbed. Dr. Woolsey had operated upon this patient, and had found a yellowish and somewhat indurated area, about the size of a dollar, in the posterior central convolution. A section of this tissue was exhibited under the microscope, and it showed that the mass removed was not a tumor. Since the operation the strength in the affected hand had improved. She had had four convulsions. The case was presented as having a possible bearing on the question of astereognosis. Apparently the anterior central convolution had not been involved in the growth. It was probable that this convolution was the one having to do with motion, whereas the posterior central convolution had to do chiefly with sensation. In astereognosis the pain and temperature sense are not usually involved, whereas tactile and deep muscular sense are involved. It was known that the two latter do not decussate in the spinal cord, but end in the columns of Goll and Burdock.

Dr. Leszynsky remarked that if the conjugate deviation were permanent it would serve to substantiate Dr. Schlapp's contention.

Dr. B. Onuf said that he had seen a recent case exhibiting marked conjugate deviation together with a very decided ptosis on the left side, and on the right side a paresis of the abducens nerve. This deviation had come on after an apoplectic attack of hemiplegia. He did not think such a case could be explained by the involvement of the abducens nucleus; the lesion was evidently in the region of the third nucleus. It was possible that involvement of the posterior longitudinal fasciculus might explain the deviation. In his case the deviation was permanent. The affection of the right auditory nerve would confirm the theory that the abducens was affected.

MULTIPLE ENDOTHELIOMA OF THE DURA.

Dr. Hunt presented this specimen, which was derived from a woman, forty-five years of age, in the Montefiore Hospital. When fifteen years old she had become suddenly deaf. Two years before admission she had begun to suffer from headache, and these had persisted. There had been no vertigo. At times her legs would suddenly give way and she would fall. On admission examination showed that there was a tendency to fall to the right; the right pupil was larger than the left; facial innervation on the right side was deficient; the tongue deviated to the left; the optic nerve showed choked disk, and weakness of the right upper and left lower extremity was very marked. The tendon reflexes were all exaggerated, but this was especially noticeable in the right arm and left leg. The right patellar reflex only was present. At the autopsy over one hundred tumors were found on the dura, aggregated chiefly about the falx, but extending over the convexity on either side. Four of the tumors were larger than the others. At the base of the brain the dura mater was free, but there were two tumors, the size a pigeon's egg, occupying the interval between the pons and the medulla, and causing a pressure atrophy of the middle peduncles on each side. These tumors were found to be endotheliomata, and the vessels showed considerable calcareous deposit. There was no evidence of malignancy.

GLIOSARCOMA OF THE RIGHT FRONTAL LOBE.

Dr. Hunt also showed this specimen, taken from a man, forty years of age, who had been brought to Bellevue Hospital because

he had fallen in the street. According to friends, he had been acting very peculiarly for the past four months. He was moderately emaciated and the face was flushed. There was incomplete left-sided hemiplegia with loss of skin and tendon reflexes on the affected side. He was stupid, but could be easily aroused to answer questions. He showed a strong disposition to turn everything into ridicule. There was no conjugate deviation of the eyes, and no aphasia. The pulse was not slow. At the autopsy the meninges were found to be normal, but the convolutions over the right frontal lobe were flattened and very edematous. On making a section into this lobe a large tumor had been found growing in the white substance. It had grown outward and downward into the frontal cortex. The tumor proved to be a gliosarcoma.

BRAIN TUMORS.

Dr. M. Allen Starr opened the discussion on this subject, reporting the following case: The patient was a boy of eleven years, who had come to him after treatment for malaria by other physicians because of the persistence of morning headaches. These headaches had begun in June, and had gradually increased in severity up to October 8th, when Dr. Starr had first seen him. The boy was then dull, spoke very slowly, and would drop asleep if left alone for a very few minutes. The left external rectus was a little weak; there was nystagmus and double optic neuritis. He had suffered from vertigo, and had vomited twice unexpectedly. His gait was quite ataxic, and the left limbs assumed involuntarily abnormal positions. There was no inability to smile, either voluntarily or reflexly. The ataxia of the right leg was very marked, and was associated with a peculiar involuntary position of the hand and arm. There was apparently no anesthesia on the left side, and no hemianopsia. A diagnosis of tumor of the optic thalamus had been made at once because of these forced positions. Dr. Starr said that he had seen such a case in Meynert's clinic in Vienna. Meynert considered these automatic movements and forced positions as a voluntary correction of a delusional state. The question of operation was not entertained. As the boy's father had died of general paresis the boy was put on mixed treatment, and this had been pushed vigorously for a number of weeks. During this time the boy had grown steadily worse, and had had several collapses accompanied

by a pulse of 40 and rapid breathing. He had been last seen on October 27th, and had been able then to understand what was said, but could not talk at all. He was totally paralyzed on the right side, and was able to turn the head only to the middle line. There was apparently no disturbance of sensation on the paralyzed side. The limbs were no longer held in stiff positions, but were relaxed, and the tendon reflexes were abolished. There was no complaint of headache. The pulse was 80, and the respirations regular, and there was no fever. He died quietly on the following day. The autopsy revealed the presence of a tumor occupying the optic thalamus on the left side, which was enormously enlarged. It was completely infiltrated by a sarcoma. The tumor had apparently compressed the internal capsule, and had infiltrated all of the tissue of the segmentum about the corpora quadrigemina. The ventricles were enormously distended with fluid.

Dr. Starr said that this case had led him to look over his private records of brain tumors for the past six years. He had seen in this time 25 cases of brain tumor. Fifteen of the patients were males, and ten females. All ages appeared to be about equally liable. The average duration of the disease had been 11 months, which was much shorter than generally stated. The tumors had been distinctly located in 15 cases, and it had been possible to operate in four cases. No diagnosis of tumor whatever had been possible in two cases. One of these was a patient whom he had been asked to see because it was purposed to commit him to an asylum. There was a history of chronic alcoholism, some headache and morning vomiting; great mental irritability and imperfect memory. At times he was very violent with his family, though perfectly quiet in the presence of others. In the previous month on two occasions he had had sudden attacks of coma lasting about half an hour. Two days after this examination the patient had suddenly died, and the autopsy had revealed a large tumor occupying the left superior parietal convolution. The other case had been seen in consultation with Dr. Biggs. Several physicians had agreed upon the diagnosis of bulbar paralysis. There was no optic neuritis and no headache. At the autopsy a small tumor had been found occupying the entire medullar oblongata. No localization had been possible in eight out of his 25 cases. In 19 an operation had been abso-

lutely impossible, either because of the absence of a diagnosis or because the tumor was inaccessible. The operation had been done in six cases, and in two the operation had been successful in that the tumor had been found, but one of these patients had died. Therefore, there had only been one patient out of 25 who had recovered. In one case astereognosis had been considered the most important symptom of localization, and consequently the parietal region had been freely exposed, but no tumor had been found. In one case in which the tumor had been in the cerebellum Dr. McCosh had operated. To relieve the distention of the ventricles they were tapped and drained. Sixty ounces of fluid a day had been obtained from the lateral ventricles. The patient had finally died, and an infiltrating tumor of the cerebellum had been found. In another case of cerebellar tumor the occipital bone had appeared at the operation worm-eaten, and had been the seat of such a profuse hemorrhage that further exploration had been considered inadvisable. In a summary of the cases of brain tumor made by him in 1896 it had been shown that about 7 per cent. of brain tumors are operable, and that of the cases operated upon about one-third recover from the operation. These earlier statistics had been made up from a large number of cases by different operators, and had not been from his own records alone.

Dr. A. J. McCosh said that the case shown by Dr. Starr was an unusually favorable one for operation because of the accuracy of the diagnosis, the accessibility of the growth and its freedom from vascularity. Most of the brain tumors that he had seen had usually caused considerable hemorrhage and severe shock. The statistics of these 25 cases seemed to him to come more nearly to the truth than the older ones giving a more favorable percentage.

Dr. Leszynsky said he wished to report the further progress of the case reported by him to the American Neurological Association. The patient had been suffering from symptoms pointing to a lesion in the motor area for nearly two years before coming under observation. The tumor had been found at operation to be an endothelioma of the motor cortex. The operation had been done two years and a half ago, and although the patient had relapsed more or less into a hemiplegic state, he had practically recovered. The localization in this case had been exceedingly accurate. No untoward result had followed the operation, and no

additional damage had been done to the brain by the operation. The patient was still engaged as an accountant.

Dr. Onuf reported a case in which the localization had been very satisfactory. The history had begun in July, 1901, with slight jerkings of the shoulder and hip, followed by weakness of the left leg and arm. About two months after the onset of the symptoms the speaker had seen him, and although suspecting brain tumor, he had placed the man on vigorous antisyphilitic treatment for two weeks. A peculiar feature had been that there was chiefly an affection of the abductors, flexors and extensors of the hip, while the extensors of the knee had been less affected, and the muscles of the feet hardly at all. The jerkings had been purely of the Jacksonian type. The case was remarkable because of the absence of headache and local tenderness. The diagnosis had been made, chiefly on the predominance of the affection of the central part of the extremities, of a tumor situated between the shoulders and hip centres, probably quite near the cortex. Immediate operation had been urged, but it had not been done for three weeks. The tumor had been found directly beneath the trephine opening. There was much shortening, so that a sound could be introduced for two inches without encountering resistance. The microscope showed the tumor to be a gliosarcoma. It had been impossible to remove all of the tumor.

Dr. Schlapp said that in his specimen there was an arteriosclerosis with an increase of gliar cells and the deposition of calcareous material. He had not made the diagnosis of tumor involving the abducens nucleus entirely on the conjugate deviation, but the fact that the left side of the face had been weaker than the right had seemed to confirm that view.

Dr. Joseph Fraenkel said that he had seen a few days ago a boy of about eighteen, who claimed to have been well until struck in the back of the head by a swinging door. After this he had developed paralysis of the right third nerve, followed soon afterward by hemiplegia. He had been operated upon, and the base of the brain searched for a basal cyst, but none found. He had then been admitted to the Montefiore Hospital. There was paralysis of the left upper extremity and an enormous contracture, with less marked paralysis of the left lower extremity and some slight optic atrophy. Subsequently inquiry had elicited the fact that his companions had noticed long before the ac-

cident that the boy showed a peculiar tendency to laughter. Dr. Fraenkel recalled a case which had exhibited similar automatic movement to those reported in Dr. Starr's case. He had come to the conclusion that the tonus of the muscles was the most important factor in connection with the production of reflexes. He would like to know how absence of the reflexes could be explained in Dr. Starr's case.

Dr. Joseph Collins exhibited a photograph of an enormous tumor of the frontal convolution, which had been diagnosed by an eminent neurologist and by himself as a tumor of the pons. His experience had gone to show that brain tumors are far more inoperable than was generally believed. Statistics had seemed to show that about 7 to 10 per cent. were operable, but when one came to sift these it was found that about 3 or 4 per cent. were operable. In his own experience but one case had been successfully operated upon, although the operation had been many times essayed. Dr. Bramwell of Edinburgh had contended that his own very large experience had utterly failed to confirm the statistics given by others regarding the operability of brain tumors.

Dr. Starr closed the discussion. He did not feel like subscribing to the statement of the last speaker concerning the almost universal inoperability of brain tumors, for in two of his own series of 25 two had been distinctly localizable and operable. Accidental hemorrhage had caused death in one of these cases, and the other ought to live the usual length of life with only slight disability. It was true a great many cases of brain tumor successfully operated upon were reported, while many unsuccessful ones are not reported. Dr. Bramwell's statements were not borne out by his experience, for Dr. Bramwell had published 61 cases of brain tumor that had occurred in his own practice, and of this number there had been at least seven that could have been successfully operated upon. Discouraging as the statistics were, it was right to operate upon every case of brain tumor having a distinctly localized and accessible tumor. He believed if in the case presented by him at this meeting the operation had been consented to when first advised, the patient would have recovered without any disability. The conjugate deviation referred to by Dr. Schlapp might occur not only from a lesion of the sixth nerve nucleus, but from anything which interferes with the posterior longitudinal fasciculus between the sixth and third nerve nucleus.

BOOK REVIEWS.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by HENRY W. CATTELL, A.M., M.D., with the Collaboration of JOHN B. MURPHY, M.D., ALEXANDER B. BLACKADER, M.D., H. C. WOOD, M.D., T. M. ROTCH, M.D., E. LANDOLT, M.D., THOMAS G. MORTON, M.D., CHARLES H. REED, M.D., J. W. BALLANTYNE, M.D., and JOHN HAROLD, M.D. With Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. Vol. IV., Eleventh Series. 1902. 8vo., pp. 302. Illustrated. [Philadelphia: J. B. Lippincott Company. 1901. Price per volume: cloth, \$2.00; half leather, \$2.50. Each Series consists of four volumes.

The volume before us ends the eleventh series of *International Clinics*, a publication which proved a pronounced success from its very inception. This success has been a continuous one, and is very rightfully attributed to the large support lent by subscribers who have thus testified to their appreciation of the improvements which the publishers have made in this work. The leading writers of the world are represented in each volume, and we note that with each number additions are made to this large and brilliant list of contributors to medical literature. In this volume which is under review the contents embrace 107 illustrations, 34 special formulæ, a table on infant feeding from one week to three years, and articles by 36 authors, the majority being widely-known American teachers who are of the highest rank and whose names are known to every physician who reads medical works and journals. To give the reader a better idea of the contents a brief mention of the principal contributions may be of some interest.

The department of Therapeutics opens with a finished article, *Remarks on Strychnine*, by Dr. A. Jacobi. This is followed by a useful one giving a *Description of the Methods of Investigating the Action of Drugs*, by Dr. Horatio C. Wood, Jr. Dr. Louis Brocq of Paris writes a contribution *On the Superiority of Small, Repeated Doses of Solutions of Mercurial Salts in Treating Syphilis*. He mentions the various disadvantages of such a method, as well as the advantages. Dr. A. Guinard of Paris describes *A Modified Technique in the Spinal Injection of Cocaine*. He uses the spinal liquid itself as a vehicle for the cocaine, but few foreign elements being introduced by this method. The Climate of

Southern California, by Dr. Norman Bridge, and The Climatology of Augusta, Georgia, by Dr. Thomas D. Coleman, are good contributions to the subject. This department closes with a number of selected formulæ of value.

In the department of medicine among other interesting contributions are Prognosis in Chronic Valvular Disease of the Heart, by Dr. J. Mitchell Bruce, and Some Interesting Cardiac Lesions with Autopsies, by Dr. Roland G. Curtin. A careful reading of these will repay for the time spent in it. Dr. James J. Walsh has a very well considered article on Winged Insects and their Larvæ as Parasites of Man. This includes a very thorough consideration of the "screw worm," which attracted so much attention a few years ago. Dr. James B. Walker reports A Foreign Body in the Air Passages Simulating Rapid Phthisis. It concerned a little girl of two and a half years who had a water melon seed impacted in her bronchus, it being expelled in two months. The symptoms simulated rapid phthisis.

Among the better articles in the department devoted to Neurology are: Types of Hemiplegia, by Dr. G. L. Walton; The Etiology and Treatment of Acute Myelitis, by Professor G. Marinescu of Bucharest, Roumania; and Total Aphasia, by Professor Arnold Pick of Prague, Austria.

The department of Surgery is unusually rich in material. Among the interesting contributions is a Surgical Clinic, by Dr. Nicholas Senn, another by Dr. John B. Denver and some separate articles. Among these latter is one on Movable Kidney, by Dr. G. Frank Lydston; Exploratory Incisions in Doubtful Tumors, by Dr. P. Quénu of Paris; and Splenectomy for Malarial Cachexia, by Professor Thomas Jonnesco of Bucharest, Roumania.

In the department of Pediatrics one article appears by Dr. John Madison Taylor on Deformities in Children, from the Standpoint of the General Practitioner. This is well illustrated with original chalk pictures by the author and is quite interesting and instructive. The department of Dermatology is represented by an article by Dr. William S. Gottheil on the Modern Treatment of Some Common Dermal Affections. The volume is concluded by a special article on Methods of Keeping Case Records in Private Practice. This is in the nature of a symposium to which Drs. Frederick A. Packard, J. P. Crozer Griffith, Judson Daland, J. K. Mitchell, John H. Musser, and Alfred Stengel contribute. It is full of suggestions and offers many ideas to those who keep records of cases.

From the foregoing it will be readily seen that this volume is of more than ordinary value. The publishers present it in unexceptional shape, and at a price which is really most moderate and within the reach of all—\$2.00 a volume.

A Manual of Practical Anatomy. By the late Professor ALFRED W. HUGHES, M.B., M.C., Edin., F.R.C.S., Edin., F.R.C.S., Eng. Edited and Completed by ARTHUR KEITH, M.D., Aberd., F.R.C.S., Eng. In Three Parts. Part I.: The Upper and Lower Extremities. 8vo., pp. 274. Illustrated by 38 Colored Plates, and 116 Figures in the Text. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$3.00 net.

This excellent Manual of Practical Anatomy was never seen by its author. It is a posthumous work which was completed as well as edited by the author's friend. To any one who reads and studies the first volume the practical character of the work will become immediately apparent. Profusely illustrated as it is, it would be impossible to miss a single point; and written in such a clear, terse style, it cannot fail of gaining friends among all those the least interested in the subject whereof it treats. A very good addition made by the editor was that of a number of colored plates after Holden, himself no mean authority on anatomy. We are much pleased with the book, not only on account of its thoroughness but because it considers the subject in a manner that renders it very interesting. In fact, he who has not condescended his guide on anatomy will be attracted by this work and will wonder why he ever thought that the study of anatomy was a dry subject.

A critical examination has only confirmed our first impression from a rather superficial glance at its contents. It is a good work full of practical points as well as useful information adapted to the practitioner as well as to the medical student. To the latter it should prove what he has been most desirous of obtaining. Being subdivided in three volumes makes it very easy to handle and much preferable to the cumbersome treatises, that are spoilt in a very short time. We are pleased to see this book presented to American readers, and we are certain that it will become a favorite with them.

The publishers have made it in a neat, attractive form, and it is printed on paper which is of an extra good quality, large type is used, and altogether the mechanical execution is above the average. It is a good book, presented in an attractive form, and this should be sufficient to ensure a large and ready sale for it.

Psychopathia Sexualis. With Special Reference to Antipathic Sexual Instinct. A Medico Forensic Study. By R. V. KRAFFT EBING. The only authorized Translation of the Tenth German Edition. By F. J. REBMAN. 8vo., pp. 585. [Chicago: W. T. Keener & Co., 90 Wabash Avenue. 1901. Price, \$5.00 net.

To make any analytic review of this work would indeed be superfluous. It is so well known and has been so universally commended that words of praise would seem to be like an effort to gild refined gold. We may permit ourselves, however, to call

attention to a few of the features which characterize this edition of the well-known work of Krafft-Ebing. The book before us is a translation of the latest of the tenth and last German edition, and upon comparison with former ones it may readily be seen that it has been thoroughly revised. In addition to this, the histories of many cases have been added, these adding materially to the value of the work. The author has pursued his subject most seriously and has added a most valuable chapter to the subject of sexual perversion, which unfortunately has obtained such a strong foothold upon a large number of individuals of the present day, and promises to develop in a marked degree in the oncoming generation. For this reason it behooves every physician to keep well informed upon the subject of sexual perversion, and although a most unsavory subject he has no right to avoid doing so. It is just such a book as the one before us which will be found valuable as a guide, and will probably direct him in his studies of this branch of psychology. Lawyers and jurists will find it no less valuable to them, and as the publishers have very judiciously limited the sale of the book to these two classes of professional men, there is but little danger that others will be contaminated by reading it.

The translation is a most excellent one and to be highly commended. The easy, flowing style of the author is well reproduced, and every line is full of interest and pregnant with information. We are pleased to see this new translation and we are certain that those who read it will never regret having done so. Much knowledge may be gained from it and not the least from the casuistic record which is given. The book as it now stands is a credit to both translator and publishers, and will ever remain a monument to its author, who had the manliness to study and publish his observations on perverted sexual instinct.

Transactions of the American Ophthalmological Society.

Thirty-seventh Annual Meeting. New London, Conn. 1901. 8vo., pp. 202, 405, 45. Illustrated. [Hartford: Published by the Society. 1901.

As usual, these Transactions reach us filled with good papers, reports of rare cases, and throughout replete with matter interesting to ophthalmologists. Among the more striking contributions made by members are to be mentioned a Contribution to the Pathology of Vascular Growths into the Vitreous, by Dr. W. B. Maple; a Histological Description of an Eyeball with Dropsical Degeneration of the Rod and Cone Visual Cells of the Retina which Clinically Simulated Glioma, by Drs. De Schweinitz and Shumway; Case of Adenoma of the Meibomian Gland, with a Synopsis of What is Known on that Kind of Tumor, by Dr. Knapp; Primary Tuberculosis of the Iris, by Dr. Hepburn; A Case of Sclero-Corneal Cyst, by Dr. Gruening; and A Case of Sarcoma of the Iris, by Dr. Gruening.

Among some very interesting papers may be mentioned A Case of Large Foreign Body in Anterior Chamber Removed, with Preservation of Perfect Vision, with Photographs of the Foreign Body in Situ, by Dr. St. John, Case of Foreign Body Lodged within the Eyeball and Removed Eighteen Years After the Injury, by Dr. Hubbell; Anophthalmus Congenitus, by Dr. Claiborne; Cyst of Vitreous, by Dr. Kaller; Dislocation of Lachrymal Gland, by Dr. Mittendorf; and Hunterian Chancre of Caruncle, by Dr. Hepburn.

Following this a number of new instruments are described, followed by the presentation of photographs of cases. The volume closes with the Report of the Committee on Standards and Methods for Examination for Acuteness of Vision, Color Sense and Hearing.

The present volume may easily take rank as the best one which has appeared of late years, and it is well illustrated as well as handsomely printed.

The Standard Medical Directory of North America, Consisting of Twelve Parts, including Directory of Physicians of North America, Medical Colleges, Medical Service of the United States, Medical Societies, Medical Practice Arts, Medical Publications (including Books and Periodicals), Mineral Springs, Drugs and Medicines, Medical and Surgical Products, Manufacturers and Life Insurance Companies. Imperial 8vo., pp. 834. [Chicago: G. P. Engelhard & Co. 1902. Price, \$10.00.

This is one of the best and most systematic medical directories that has been issued of late years. The different parts of which it is composed are well indicated in the title of the book. It is well constructed and very full, and as a book of reference it is invaluable. So far as its reliability in regard to its completeness is concerned, it offers all the evidence that a very strong effort has been made to include the names of all the medical practitioners of North America. The publishers are certainly deserving of much credit, and the book is a handsome one bound in red buckram. It will no doubt meet with a ready sale.

A Manual of Ophthalmoscopy. For Students and General Practitioners. By J. E. JENNINGS, M.D. Large 12mo., pp. 181. With 95 Illustrations and 1 Colored Plate. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, \$1.25 net.

This small manual is one which is not only well written, but it will prove of much assistance to students and general practitioners who desire to perfect themselves in ophthalmology. The illustrations of the fundus of the eye are numerous and well made. The only regret which we have to express is that they are not in colors. There is one plate in colors with seven figures of the fundus given. This was made by the author, and the coloring is too marked and the red too dark. The methods of exam-

ination which are given are good, and throughout the book is quite practical. Nearly all the conditions which may be encountered are described. We were somewhat surprised not to see coloboma lentis described. Whilst a comparatively rare condition, it is one so marked that it deserves special mention among the congenital defects of the eye; and calling especial attention to it might lead to the discovery of others, in the same manner as has occurred in the case of other supposedly rare cases, which were finally found to be comparatively frequent. The peculiar retinal picture presented in triphthalmos is also not described.

With the exception of these very few and really unimportant omissions the book is very complete and contains much within the compass of a very few pages. We have no doubt that it will meet with a ready sale and it is deserving of it. The publishers have made a handsome little volume of it, and the author is certainly entitled to feel gratified over this his latest effort at book writing.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL :

Psychopathia Sexualis. With Special Reference to Antipathic Sexual Instinct. A Medico-Forensic Study. By Dr. R. V. Krafft-Ebing. The only authorized Translation of the Tenth German Edition. By F. J. Rebman. 8vo., pp. 585. [Chicago: W. T. Keener & Co, 90 Wabash Av. 1901. Price, \$5.00 net.

A Manual of Practical Anatomy. By the late Professor Alfred W. Hughes, M.B., M.C., Edin., F.R.C.S., Edin., F.R.C.S., Eng. Edited and Completed by Arthur Keith, M.D., Aberd., F.R.C.S., Eng. In Three Parts. Part I.: The Upper and Lower Extremities, 8vo., pp., 274. Illustrated by 38 Colored Plates, and 116 Figures in the Text. [Philadelphia: P. Blakiston's Son & Co. 1901. Price, \$3.00.

A Manual of Ophthalmoscopy. For Students and General Practitioners. By J. E. Jennings, M.D. Large 12mo., pp. 180. With 95 Illustrations and 1 Colored Plate. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, \$1.25 net.

Transactions of the American Ophthalmological Society. Thirty-seventh Annual Meeting. New London, Conn. 1901. 8vo., pp. 202, 405, 45. Illustrated. [Hartford: Published by the Society. 1901.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of

Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A. M., M. D., with the Collaboration of John B. Murphy, M. D., Alexander Blackader, M. D., H. C. Wood, M. D., T. M. Rotch, M. D., E. Landolt, M. D., Thomas G. Morton, M. D., Charles H. Reed, M. D.; J. W. Ballantyne, M. D., and John Harold, M. D. With Regular Correspondence in Montreal, London, Paris, Leipzig and Vienna. Vol. IV., Eleventh Series. 1902. 8vo., pp. 302. Illustrated. [Philadelphia: J. B. Lippincott Co. 1901. Price per volume: cloth, \$2.00; half-leather, \$2.50. Each series complete in four volumes.

The Standard Medical Directory of North America, consisting of Twelve Parts, including Directory of Physicians of North America, Medical Colleges, Medical Service of the United States, Medical Societies, Medical Practice Acts, Medical Publications (including Books and Periodicals), Mineral Springs, Drugs and Medicines, Medical and Surgical Products, Manufacturers and Life Insurance Companies. Imperial 8vo., pp. 824. [Chicago: G. P. Engelhard & Co. 1902. Price, \$10.00.

The Woman's Medical Journal.—This publication changed its size January 1, last, and is now a handsome quarto, presenting a better appearance than it has done in the past. We are pleased to see our sister editors doing so well, and, if they will remember, we predicted success for the publication when it made its initial bow to the medical profession.

New Wonder-Book.—World's Fair Classification Shows the Marvellous Activity of the Human Race; Every Art and Industry has a Place. An advance copy of the Classification Book for the Louisiana Purchase Exposition at St. Louis in 1903 has been received. Fifty-three pages are required for a mere enumeration of the groups and classes of exhibits. The exhibits of the entire exposition are divided into fifteen departments, as follows: education, eight groups; art, six groups; liberal arts, thirteen groups; manufactures, thirty-four groups; transportation, six groups; agriculture, twenty-seven groups; horticulture, seven groups; forestry, three groups; mining and metallurgy, five groups; fish and game, five groups; anthropology, four groups; social economy, thirteen groups; physical culture, three groups. The total shows 144 groups and 807 classes, and under each class is a possibility for a multitude of exhibits. Nothing reflects so clearly in so small a space the variety of human occupations or more comprehensively the broad scope of the great exposition which the people of St. Louis are preparing for next year. A place is provided for every conceivable product worthy of exhibition and all nations of the world have been invited to take part. Acceptances have been received from many. The work of construction is progressing earnestly. The buildings will have an aggregate floor space of 200 acres and the grounds a total area of 1,000

acres. The money now available aggregates \$15,000,000, besides \$1,000,000 appropriated by the State of Missouri and various liberal sums from other States. The Classification and the Rules and Regulations of the Exposition will be mailed free on application to the Director of Exhibits, World's Fair, St. Louis.

The Dental Summary.—On the night of January 4, 1902, the large edition of January *Ohio Dental Journal*, all printed and in the bindery, was consumed by fire, necessitating resetting and printing an entire new edition, which accounts for the delay of this edition. The plates were destroyed and had to be reproduced, and a new cover design gotten up. In constructing this design it was thought best to change the name of *The Ohio Dental Journal* to *The Dental Summary*. The new journal presents a handsome appearance and we have no doubt will increase in popularity. It continues to be published by the Ransom & Randolph Co. of Toledo, Ohio.

Brooklyn Medical Journal.—This excellent and ever-progressive journal has changed from an octavo to a small quarto and is really improved in appearance. The Medical Society of Kings has inaugurated a real improvement by this change.

The Journal of Advanced Therapeutics.—This publication has been consolidated with the *New York Lancet*, and the new journal will be published under the name of the former. Dr. William Benham Snow will act as editor in conjunction with a number of associate editors of departments. The *Journal of Advanced Therapeutics* is an octavo published at the price of \$3.00 a year, by S. L. Chatterton & Co., Rahway, N. J., and New York City.

Annals of Surgery.—This sterling publication, now issued from the press of the J. B. Lippincott Co. of Philadelphia, is improving every month. The February number contains 160 pages of most interesting and valuable reading matter fully illustrated. The following is a list of the original articles: The Technics of Nephropexy, as an Operation *per se*, and as Modified by Combination with Lumbar Appendicectomy and Lumbar Exploration of the Bile Passages, by George M. Edebohls, M.D.; Note on the Distribution of the Branches of the Internal Iliac Artery and the Zones of Exsanguination Resulting from its Deligation, by Byron Robinson, M.D.; Ligation of the Abdominal Aorta for Aneurism, by Robert T. Morris, M.D.; The Symptomatology, Diagnosis, and Treatment of Carcinoma of the Cæcum, with a Report of Two Cases, by Charles Greene Cumston, M.D., and Albert Vanderveer, M.D.; Elbow Fractures in Children, Fractures of the Lower End of the Humerus; Lesions and End Results, and their Bearing upon Treatment, by Frederick J. Cotton, M.D. The subscription price of the *Annals* is \$5.00 a year, and it is certainly a moderate one when the valuable contents of the journal are taken into consideration.

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 736.

VOLUME LXXXII.—APRIL, 1902.—No. 4.

ORIGINAL COMMUNICATIONS.

TETANUS APPEARING IN THE COURSE OF VACCINIA; REPORT OF A CASE.*

BY ROBERT N. WILSON, M.D., PHILADELPHIA, PA.

No question in modern medicine has appealed with more urgency to both physician and patient than the one that has lately presented itself under the above title; and especially so to the physician, because if vaccination and tetanus bear any serious relation to one another, he is at once the builder of the pyre on which his patient has heretofore cheerfully laid himself, and his is the hand that applies the fatal fire.

Sir William Jenner certainly had no intention of handing down a scourge instead of a blessing in the shape of a pseudo-preventive against smallpox, whose influence was in such an event far more certain and horrible than that of smallpox itself. Therefore it will be well not only to thoroughly consider at the present time the rapid succession in which case has followed case of a vaccination ulcer suddenly developing into a nidus for tetanus germs, but with equal care to study the exact relation borne by the vaccine disease to the tetanus infection, and *vice versa*.

One case has already been brought vividly before Philadelphia by the coroner and newspapers alike, and the reaction that has succeeded its publication has not been mollified by the subsequent relation of six new cases of so-called vaccine tetanus in Camden, Philadelphia's trans-Delaware neighbor. This feel-

*Read before the Philadelphia County Medical Society, Nov. 13, 1901.

ing has been shared by the medical profession and the layman. No physician will vaccinate a patient, however mercenary he may be, if he must wittingly run the risk of inserting a toxin that will cost the patient his life not a whit less likely than did the rattlesnake bite of a few years since, or the poisoned arrow-head of our border warfare.

Philadelphia and Camden have recoiled with horror at the idea of a danger that is now known to have threatened the thousands that have been vaccinated within the last six weeks.

Nor has this feeling been modified by the hardly judicious and far less thoughtful statement purporting to come from the coroner's physician at Camden, to the effect that, "for the present vaccination should be discouraged, as the air is still laded with tetanus germs, and the procedure is therefore not safe." Probably the remark was not correctly reported. Still more probably was it never conceived by the official in question, and that it rather emanated from the brain of a space writer for the daily columns. But the tone of it echoes the feeling of the mass of the people, and its shuddering fear, even though grounded on an absolute lack of warrant either in fact or scientific demonstration, is as real as it is natural.

A printed circular has been published, moreover, carrying the name of the President of the Camden Board of Health, with a view to allaying the fears of the public, and in this are several statements to which the medical profession cannot subscribe and which should not be given as facts to that same public. One of these is the statement citing facts "proving conclusively that cases of tetanus appearing in from three weeks to one month following vaccination can in no wise be attributed to the virus employed nor to the faulty technique of the physician."

While believing thoroughly in the value and safety of a properly executed vaccination, properly cared for by a physician throughout the course of the ulcer and its healing, I must take issue with the foregoing statement; and, further, I believe that there is no need to stand upon long-since-disproved arguments for the defense of vaccination. One of the greatest authorities on tetanus was Dr. Samuel D. Gross, who says that "the period which intervenes between the occurrence of the injury and the development of the disease is liable to considerable variety. Generally it ranges from four to ten days. In some instances

well-marked symptoms supervene within several hours after the receipt of the injury; and, on the other hand, the attack may not occur under eight or ten weeks. In rare instances the disease does not appear until after the wound that provoked it is completely closed."

A little further on in the same article he cites "one case occurring in a grown man five weeks after a traumatism," and another, "in a young girl one month after the injury." A considerable number of isolated cases can be produced to show that the incubation period of tetanus can vary within limits almost greater than those of any other disease, with the single exception of hydrophobia. Most of the cases cited by Gross as having a long incubation period ran a mild course to be sure, and the two already quoted by me from him passed on to complete recovery. He says: "It has been found that any tendency to chronicity is generally so much in favor of ultimate recovery, although patients sometimes live for several weeks and then die from the effects of the malady."

"Persons are most likely to recover from acute tetanus when the attack occurs subsequent to the ninth day after the injury, and that when the symptoms have lasted fourteen days restoration is the rule and death the exception, apparently independent of the treatment."

He qualifies this, however, by the following: "The prognosis in traumatic tetanus is extremely unfavorable. In the great majority of cases death occurs from the third to the fifth day, and if an instance of recovery is met with it only goes to confirm the general law of the mortality of this affection." This remark he applies not only to acute tetanus, but to the chronic form of the disease; and at no time does he by name distinguish between the two forms, as there seems a tendency now to do. Our only means of discrimination consists of that "tendency to chronicity," as he aptly names it; even when this occurs, we can grasp at it only as a ray of light in a dark prognosis. But the final test must rest in inoculation experiments upon animals with samples of the identical virus that was used upon our tetanus cases; and if these experiments are satisfactory, we cannot fail by means of them to satisfy our own conscience and the minds of the public that the tetanus germ has been introduced by other channels than through the vaccine lymph.

The Camden Health Board, in its published article, claims that "it is a most important matter to impress the value of using an aseptic vaccine shield." With this statement also I wish to take square issue, and can refer to the experiments of a number of physicians whose voices will be raised with mine against the advocacy of any other extended use of the vaccine shield than its consignment to the waste-basket. I have used every form of aseptic shield made in and around Philadelphia, and have at last discarded them all as not only of no advantage, but a direct invitation to tetanus and other organisms to experiment with the vaccine sore. We treat no other wound with the carelessness and deliberate violation of the laws of cleanliness and asepsis that we exhibit toward the vaccine vesicle and ulcer. Certain of these shields are made so as to seal the wound completely from the outside air. These also seal the accumulation of serum, pus, or blood, or perhaps all three, within narrow limits. The shield, moreover, when once used must be thrown away, adding an item of expense where the only return is an injury. The varieties that can be cleansed are such as cannot be applied closely over and around the wound, and in no instance have I seen one of this variety that did not allow more or less dust and dirt to sift in and through air-holes in its surface and underneath its edges.

In one particular instance of a servant in a family resident in the best section of this city I removed after four days' time enough gray soft dust of the ordinary dust-pan type to have filled a teaspoon. This shield was one of the most expensive, celluloid "aseptic" type, and was carefully fitted on the leg by myself. Such a condition of uncleanness is only aggravated by the pressure exerted at certain points over an already inflamed area when the adherence is such as to cause even an approach to avoidance of dust and dirt. In my experience (an ulcer on my own arm, lasting six weeks, furnishing the most vivid example, though only one of a number) the cases that have experienced the severest "takes" and the angriest arms have not been those in which the previous general condition was not good, but those in which the shield or some other improper form of covering, or no dressing at all, was used. I have found by all means the most satisfactory dressing to be a simple aseptic gauze pad covered with a layer of cotton and a

firm gauze bandage, the whole dressing to be changed twice daily. As soon as the vesicle discharges and during the stage of healing a pad of lint covered with zinc ointment may be substituted for the gauze next the surface. The only objection to this dressing is the difference in expense, but even among the poorer classes it can be applied after cleansing and dressing the arm at home, and if crippled limbs and tetanus are in this way avoided the expense is warranted. If the shield is to be used at all, it should be only during the first twenty-four hours, and then beneath a sterile dressing and bandage, the shield to be discarded at once upon the appearance of the first signs of activity in the wound.

The following case which came into my care during the past month is a marked example, both of the untoward influence of the shield (also of the approved celluloid, so-called "aseptic" pattern), and of a tetanus infection probably taking place beneath and through the openings in the shield. It will serve to illustrate several points that arise in the discussion of a question of this nature.

F. I. K., aged 11 months. Vaccinated by another physician just four weeks before she was seen by the writer. According to the parents and the physician, the vaccination "took" and ran a moderately severe course. At the end of the fourteenth day healing began, and when last seen by the attending physician the ulcer was clean, still discharging serum, but absolutely free from any sign of secondary infection.

The father is a coachman, in good health. Mother also well. Their home is in the second story of a building the first floor of which is used as a stable and carriage-house. The mother states that the baby has often been in bed with the parents, but lately they have kept it in a crib by itself. Child has always been healthy except for early symptoms of malnutrition, from which it had entirely recovered. When seen on November 6, 1901 (exactly four weeks after vaccination), the child was fretful, and the mother stated that for twenty-four hours the vaccine sore had "smelled bad" and looked angry. Friends had told her that all vaccine ulcers had a bad odor, and for this reason she had deferred consulting a doctor. The red, inflamed area was circumscribed as completely by the edge of the shield as though a line had been drawn. The shield itself,

which was removed by me for the first time since its original application, was bound to the leg and to the vaccine sore by the pus and lymph collected and coagulated beneath. The wound had discharged very freely, that portion of the lymph and pus which the shield could not retain having been wiped away as it appeared on the outside surface. The discharge had not shown an offensive odor until within a few days of this time (exact time seems indeterminable). Child fairly bright and active up to this time. This morning the mother noticed a slight difficulty in feeding the baby, the mouth not quite closing at any time, and seemed hard to open completely. No twitching, no convulsive symptoms, no rigidity of the body. Bowels moved normally. This noon child refused food, and the mouth seemed still less inclined to open. No food since 8 A.M.

When examined at 9 P.M. the child is perfectly conscious, jaws are quite firmly set in trismus, and can only be slightly separated by the insertion of a spoon between the teeth. Marked rigidity of the spinal column. Child can be lifted with one hand placed beneath back of head. This rigidity relaxes at intervals to a certain extent. Pupils normal and equal. Temperature 99° F. Vaccination ulcer shows a round, punched-out area, the size of a quarter dollar piece, covered with a grayish-yellow slough, and the whole of the surrounding area gives a suspiciously fetid odor. Much fetid pus. The limb seems—apart from the area covered by the shield—entirely free from external inflammatory change. Further examination negative. No glandular enlargement. Reflexes all normal. Heart sounds normal and regular (92). Respiration 20. Lungs normal. Abdomen negative.

Ten P.M. An injection of Mulford's antitoxin serum was given in the muscles of the thigh (10 c.c.=500,000 units). An ice-bag was applied to the head. A suppository of potassium bromide (gr. v.) and chloral (gr. ij.) was administered. A bowel movement was found on examination to be rather greenish and semi-liquid. The ulcer was curetted and slough was removed down to the base of the ulcer, which is hard and formed of white, seemingly fibrous inflammatory tissue. The ulcer was dressed with a solution of potassium permanganate and iodoform gauze. Blood from the wound was almost black; coagulation was very rapid. Temperature 99° F.

November 7, 1901. Seen at 8 A.M. and again at 10 A.M. in consultation with Dr. F. A. Packard. Temperature 104° F. Respirations 50. The jaws were firmly set. The wound was again curetted and dressed; no pus was present. The opisthotonos was marked. The radiable pulse was not estimable; about 200 at the apex. Hypodermics of carbolic acid (gr. $\frac{1}{6}$) were administered every four hours. The antitoxin injection was repeated (10 c.c.=500,000 units). Mother states that once during the night the jaws relaxed and then stiffened again. A slight convulsion occurred toward morning, with arching of the back and slight foaming from the mouth.

Ten P.M. The wound was clean and temperature normal since two hours after the second injection of antitoxin. The body was arched in extreme opisthotonos. Trismus complete and continuous. Four ounces of milk were fed through a tube by the nose every six hours. There were occasional slight convulsions and foaming. The bowels move frequently; the stools are very dark greenish and semi-liquid. Carbolic acid (gr. $\frac{1}{3}$) was administered every four hours.

November 8, 1901. The patient was seen every four hours through the night, and again, with Dr. Packard, in the morning. Antitoxin (8 c.c.) was injected. The child seems a little less rigid. Occasional slight convulsions, with marked opisthotonos, occur. The temperature is normal, and the child slept most of the night, though there seemed to be no relaxation of the jaws or body during sleep. The wound was dressed and found clean. While being fed through the tube at the time of this visit the baby stiffened in a convulsion suddenly and died. The temperature shortly after death was 104° F. (axilla). Cultures made from the curettings of the vaccine ulcer at the time of the first visit showed a profuse growth of staphylococcus albus in pure culture on blood-serum, agar, and bouillon. Of the latter there was no clouding, but a mould-like growth on the top of the medium. No growth of the anaërobic bacilli was obtained, and none was discovered in cover-slip preparations made directly from the wound itself.

The above case is one of fulminant, acute tetanus, and resembles another that recently formed the subject of an inquest by the Philadelphia Coroner (Goldie, Hahnemann Hospital) so closely that there is no need of detailing the symptoms of the

latter or of the five or more cases that have come to light in Camden. One or two features attract attention in all the cases reported up to date.

1. In every instance, and contrary to the rule of tetanus, the so-called secondary infection has appeared at a very late date—from the twentieth to the twenty-eighth day from the time of vaccination. As is well known, the tetanus germs usually require from a few hours to two weeks—seldom longer—for the development of their toxin in amount and virulence sufficient to demonstrate its presence by the familiar symptoms. When, rarely, a longer time has been required, it has been held to indicate less active virulence of poison, and a less certainly fatal termination of the case.

2. All of the cases, including one reported still more recently from the Philadelphia Hospital, have been fatal. This is again contrary to the rule, always providing that the tetanus toxin was in fact introduced at the same time with the vaccine virus. The last-named case was one of an imbecile who scratched the vaccine wound. Three weeks after vaccination signs of infection appeared; five days later tetanus developed, and in fifty-two hours the patient died in convulsions.

In order, then, to ascribe the responsibility for all of these cases of infection by the tetanus toxin to the vaccine virus, we must allow that there has been in every case an incubation period of at least twenty days, and in my own case twenty-eight, previous to the first appearance of the characteristic symptoms. Under such circumstances, at once unprecedented in their number, we should, from former clinical appearance, expect the disease to run at least a slower and probably a milder course. Instead of this, as has already been shown, my own case died within forty hours, that of young Goldie terminated within a slightly longer period, the Philadelphia Hospital case within fifty odd hours, and not one of the Camden cases survived longer than a few days from the appearance of the first symptoms.

3. In all cases the specific antitoxin was employed, and in my own case also carbolic acid (hypodermically), as well as chloral and the bromides by the rectum, but without permanently favorable result. I was able to inject the antitoxin in my case within the first twenty-four hours of the earliest appearance

of the symptoms, and, realizing from former cases the futility of the ordinary dose, I used adult doses in a baby of eleven months. The temperature fell to normal, as it sometimes does when no antitoxin has been employed; the jaws relaxed once, as also sometimes occurs; but the child died, and we are forced again to join Gross in saying that when a case recovers or dies, it does so "apparently independently of the treatment."

4. In at least one case (my own) a mixed infection was present in the vaccination wound when first the tetanous symptoms appeared, staphylococcus albus being obtained in pure culture. Just what influence this staphylococcus infection exerted upon the system of the child cannot be ascertained. In all probability it was not a favorable one, and only increased the rapidity of the toxemia.

5. In not one case was the wound properly cared for throughout the course of the vaccinia. In nearly all the shield was used persistently, and I can personally answer that in at least one case its influence increased the local inflammation, if by replacing the proper dressing it did not actually transmit the tetanus germs. In none of these cases was any attempt made to prevent secondary infection. Irritation by shirt and sleeve and a popular prejudice against cleansing even a healing vaccine sore, combined, as is usually the case, to invite any and every possible source of infection to contribute its willing mite or magnificence to the ruin of the unlucky subject. In three cases there was a distinct history of the scab being removed and the wound remaining uncovered and without dressing in the hope of an early cicatrization without mishap or delay. In one the scab was allowed to fall in the dirt, and was then *replaced and tied fast*. My own case could not but have been repeatedly exposed to contact with the person of the father, and thus the bacilli that caused the disease. The father must have carried tetanus bacilli many a night to bed on his person, the road then being a short one under a loose shield (man's size on a baby's leg) to the wound. Just how and when the infection occurred cannot be determined; but is far more likely to have been carried from stable to child on some day shortly before the symptoms appeared than by means of the vaccine virus twenty-eight days before. The extreme infancy of the subject could have provided at best but little vigor of resistance to a powerful toxin

and a mixed toxemia. Communication with the physician who had performed the vaccination elicited the statement among the many other cases vaccinated with virus obtained from the same source, another case of tetanus appeared, also in a child, and with a similar result. At first sight this second mishap would seem to convict either doctor or virus of conveying the tetanus infection, not only in one, but in both cases. His technique in both instances, however, was faultless in detail, including a careful scrubbing with soap and water, alcohol and bichloride solution, the part finally being washed with distilled water before the insertion of the lymph. The second case developed tetanus on the twentieth day, and died on the seventh from this time. The child lived with its father, who also was a stableman, and with this statement both the physician and the virus should at once be relieved of the charge of transmitting the infection. No one who compares intelligently and with knowledge of experience the myriads of tetanus germs that flourish in the stable and in the manure, and that are carried thence in every excursion of the stableworker, can with good conscience or with reason consider any other than such as the probable source of infection. It is bad enough for the public to know that tetanus bacilli can be found in the air and dust at times; it is still worse to tell them that these organisms swarm around their favorite horses, and even in the most immaculate stable. But out of justice to the physician and to vaccination itself the fact must be told, and this ready avenue compared in likelihood with the highly improbable one of glycerinized bovine lymph that has been tested and found sterile of other bacteria and protozoa than the sporidium vaccinale, or the cause of vaccinia, whatever it may prove to be.

We are permitted the following conclusions from the consideration of the foregoing facts:

I. That the case reported in this paper, as well as that last referred to, was beyond all likelihood of doubt infected by tetanus bacilli carried from the stable to the children either by the father or through any one of the numerous channels presented by the habits of life and situation of the home of the family. That the lack of care manifested in the protection of the vaccination lesions on the limbs of this and of each and every one of the remaining cases, to say the least, rendered sub-

sequent infection by tetanus or any other germs possible and easy.

II. That the chronic or delayed form of the disease (granting for argument's sake that the tetanus poison was introduced at the time of vaccination) has never before shown such a mortality as 100 per cent., and in spite of the use of antitoxin within the first twenty-four hours, as in my own case. My personal experience, covering a number of cases of acute tetanus acquired through known channels (usually through a punctured wound of the foot or hand) does not include a single case of the chronic or latent form. J. T. Whittaker (*Pepper's System of Medicine*, vol. i., p. 466), in speaking of a series of 75 cases of tetanus, says that the incubation period was "never less than four or more than twenty days." John Ashhurst (*Principles and Practice of Surgery*, 1893, p. 583) mentions a series of 327 cases of death from tetanus analyzed by Poland; 179 occurred within two days, 104 in from two to five days, 90 in five to ten days, 43 in ten to twenty-two days, and 11 after twenty-two days. Ashhurst himself says: "Cases occurring after the third week offer a comparatively favorable prognosis."

George B. Wood (*Practice of Medicine*, vol. ii., p. 783) quotes Mr. Colles as saying that tetanus "seldom appears before the second or third week" after a wound (*Dublin Quarterly Journal of Medical Science*, vol. xiii., p. 399). "Another form of the spasm comes on in three or four days." Wood says himself: "Most commonly the attack comes on between the fourth and fourteenth day after the injury, If it should not supervene before the end of three weeks the patient may be considered safe."

Strümpell (*Lehrb. der spec. Path u. Ther.*, B. ii., S. 588) says (translated): "Traumatic tetanus follows immediately upon the receipt of the injury only in rare cases. There may intervene days or even weeks between the injury and the appearance of tetanoid symptoms."

Finally Osler (*Practice of Medicine*, 1895, p. 181), says that "after an injury the disease sets in usually within ten days. In Yandell's statistics in at least two-fifths, and in Joseph Jones's statistics in four-fifths, the symptoms occurred before the fifteenth day." The inference is at least fair that, even where not deliberately stated, a longer incubation is well recognized by all

three writers, occurring in three-fifths of Yandell's cases and in Jones's series in one-fifth.

It seems clear, then, that tetanus may, in spite of all statements to the contrary, delay its appearance for from three to five weeks, though only in rare cases. Both the general public and the antivaccine fanatics suspect, and some know this to be true. Physicians should not only acknowledge but make use of the fact to strengthen the argument against the possibility of inoculating tetanus by means of pure vaccine lymph introduced by proper methods. To my mind it furnishes one of the strongest arguments adduced up to the present time. All of the above writers agree in stating that chronic tetanus, or that which exhibits a long period of incubation, is not only a far less frequent form of the disease, but that its prognosis grows decidedly more favorable as the period of incubation lengthens. All of the cases to which I have referred must have been of the chronic form if they were introduced with the vaccine, and from the very frequency (invariably is more accurate) of the fatal outcome we may reasonably well conclude that they were rather examples of the acute form of the disease due to a subsequent infection. Their appearance dated always at or about the time when the vaccine sore is liable to be most conscientiously neglected, and when, therefore, the avenue of approach was most inviting to the tetanus germ. Nothing points more strongly to an absolute lack of collusion between the vaccine virus and the tetanus infection than this invariably late appearance of the latter and its fulminant fatal termination. I would simply add that I have received the positive and personal assurance from a member of the firm that prepared the vaccine lymph used in both of these cases, that every calf, before being used for the cultivation of vaccine virus, is immunized against tetanus by a full dose of antitoxin, and is then kept under observation until all possibility of the appearance of the disease is precluded. Only from such animals is the lymph cultivated and prepared for sale on the market. A still further assurance has been afforded in the thorough test by inoculation of white rats with specimens of the lymph bought in the open market since the occurrence of these cases of tetanus. In not one case has tetanus developed in these highly susceptible animals. We have, then, an array of facts that form an unanswerable argument

against the association of the vaccination and the tetanus in any other role than that of offering an open surface that should always be protected against secondary infection.

III. That the cases observed up to this time point to a neglect on the part of physicians; not in the matter of cleanly and proper vaccination, but in that of a failure to instruct the patient with regard to the danger (*a*) in the use of a shield rather than a protective dressing, and (*b*) the probability of secondary infection if the wound is left exposed to the sleeve and the atmosphere. In all probability the periods during which there is most likelihood of outside infection of the vaccine sore are that preliminary to and that following the stage of vesication. In the former—*i. e.*, that following the insertion of the vaccine virus—there is an open lymph surface offering a ready means of entrance to whatever toxic influence it may be exposed. In the latter—the stage of healing—there is present a granulating surface, sometimes covered with a scab, as often not. This is the time when all care is thrown aside, the arm bathed, if at all, in a tubful of water that has catered to the needs of the whole body, dried with a towel that has performed the same extensive service, and finally left to heal as best it may under the friction of a sleeve that has just left the laundry, and perhaps dried from the sprinkling of a Chinaman's mouth. While the vesicle is intact, or later, when the discharge may be free, the most care is paid both the arm and the wound. This is the time of the minimal danger. Before and after we throw wide the gates and are surprised and shocked to find that the enemy has improved the opportunity to enter in.

IV. That the occurrence of tetanus in such cases should not influence careful persons against the only safeguard provided against a dangerous and mutilating foe; but that it should awaken both the medical profession and the laity to an earnest study of the procedure, and the adoption of measures that will insure the proper execution of the same and the subsequent supervision of the vaccine sore. The honest scrutiny of figures and statistics will meet with encouragement from any advocate of the use of bovine lymph. Such occurrences as those of the past weeks only tend to shake the faith of those who neglect to learn the true cause of the tragedy.

In conclusion, I would say that after diligent search I can

find no case on record that presents even probable evidence of the introduction of the tetanus infection with the bovine, or, in fact, any other virus of modern times. No amount of such assurance can undo the harm that has already been done to a vitally valuable prophylactic measure by the carelessness of the watch that has been kept over the vaccine sore. But we can slowly eradicate the evil influence of the recent weeks by an entirely new scrupulousness that will in time overthrow the opposition that is rampant to-day. If by calling attention to this most dreaded of all the complications of traumatic and operative medicine, both the physician and patient are awakened to the fact that a danger of the entrance of tetanus organisms is ever present, and as long as there is on the surface of the body the most trivial aperture or abraded area, then the price that has already been paid is not too dear and the lives that have been sacrificed have not been lost in vain. Spread at one time over a city of the size of Philadelphia many thousands of simple open wounds, and provide for them the far superior care and attention that are usually devoted to minor surgical conditions, yet the list of fatalities from tetanus would probably equal or exceed in number the cases noted in the course of vaccinia. This is the actual experience of the day. And for the same reason; in both instances there is an open absorbing lymph surface that welcomes the tetanus germ. Following one Fourth of July I knew of and saw more cases of tetanus than I have seen or read of as connected with the vaccine sores of several years. The lesson is none too plain.

I wish to add just one word with regard to the lack of success that has attended the many efforts to secure a means to stay the fatal course of a disease that only appears, excepting a few marked cases, after the toxic forces have gathered in such power as to present a hopeless task to the physician in charge. Rarely a case recovers, and many cases die; and at the termination, whether good or bad, the physician is the last one to feel satisfied that he has exerted any influence in directing the outcome of affairs. Debler (*Muench. Med. Woch.*, September 3, 1901) reports a recovery in a case treated with Tizzoni's antoxin in doses as proportionately heroic as those used in the child reported in this paper (25 c.c. daily for three days, then 10 c.c. daily for ten days). Kraus,² Holsti,³ Roberts,⁴ Van

Natta,⁵ Hobson,⁶ and a few others have also reported cases acting favorably under the treatment by antitoxin in serum, and hundreds of references can be given of cases in which it has been of no avail. Of these reports by Packard,⁷ Kraus,⁸ Clark,⁹ Werner,¹⁰ etc., are a small number. No permanently better result has been obtained from the intracerebral injection, or from carbolic acid; and the best that we can say to-day is that certain cases recover, but most cases die; and, quoting again from Gross, "after all that has been done by modern science for the cure of traumatic tetanus, the humiliating fact stares us in the face that of the many remedies that have been paraded before the profession there is not one that is worthy of special confidence."

There is no case that is not worth fighting for, and it is a satisfaction to work hard when the odds are heavy. As each new life goes out owing to an infection by tetanus, it should prove a new stimulus and an additional incentive toward the discovery of an effective means of combating a toxin that has inundated the system before we have realized the danger of our ground. It may also be of interest to add that the writer, in endeavoring to obtain material for a culture from the ulcer on the leg of the case reported in this paper, was unfortunate enough to have the test-tube containing the pus and curetted tissue collapse beneath the pressure of his fingers, and to feel a sizable piece of glass enter the tip of the forefinger. It was not known, of course, whether any of the material was carried into the narrow but deep puncture, but the anxiety was sufficient to warrant an energetic opening and cleansing of the wound. Dr. Packard was kind enough on the following day to inject into the muscles of the lumbar region an immunizing dose of the antitoxin serum (twenty hours after the receipt of the wound.) Up to the time of this injection there had been absolutely no disturbing symptoms at the point of the wound. On the evening of the day marked by the injection of the serum vague rheumatoid pains began to play up and down the hand, always radiating to the wrist from the point of the wound. The wrist and hand were also stiff, as if from overuse. It is easy to realize that the mind may well have been affected by anxiety over a possible tetanus infection; but a careful analysis of the sensations in one who is not disposed to climb a fence

before it is in sight, placed the idea of imaginary pain beyond the range of possibility. This became all the more certain during the following two days, when the stiffness and discomfort were so marked as almost to prevent the use of the arm and hand. With the fourth and fifth days these sensations gradually began to lessen, until at the present time (two weeks after the receipt of the wound) they have entirely disappeared. Whether these sensations were due to an injury to a nerve filament, or, as suggested, to the contest between the tetanus toxin and the injected serum, will never be accurately known. The pain—if it could be called pain—was hardly that of an irritated or wounded nerve, nor did it appear at once, as it would have been most likely to do in such an event. The wound itself healed promptly, and has given no sign of further activity.

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Leper Colony in the Philippines.—The island of Kulion, distant from Manila about twenty hours' sail by steamer, was recently visited by the Commissioner of Public Health and the sanitary engineer of the Philippines Commission, to perfect arrangements for the establishment of a leper colony thereon. The island is about twenty miles long, ten miles broad and contains many fertile valleys suitable for agricultural purposes. It is also well watered and timbered, and well adapted to stock raising. It is the intention of the commission that the colony, after its establishment, shall be self-supporting. It is expected that about six hundred lepers will be established on the island before the first of April, though the thorough carrying out of the plan as contemplated will require a number of years.—*Boston Med. and Surg. Jour.*

THE USE OF ICHTHYOL IN CHRONIC BRONCHITIS IN CHILDREN.

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At a stated meeting of the New York County Medical Society (*Medical Record*, May 20, 1899), Dr. J. E. Stubbett of Liberty, N. Y., in reading a paper entitled, "Some Auxiliaries to the Climatic Treatment of Phthisis," was among the first to call the attention of the medical profession to the use of ichthyol in phthisis, stating that out of 51 cases 14 per cent. had been apparently cured and 55 per cent. improved. The annual report of the Loomis Sanitarium for the year ending 1900 reports 17 per cent. cured with septic or mixed infection. Unna has resorted to the use of ichthyol (Merck's Digest, No. 29) by inhalations in la grippe with considerable success. He used a dessert-spoonful of ichthyol to one quart of water, which was gently heated.

Dr. Potter, in his "Materia Medica," says that when ichthyol is used internally it retards the disintegration of albumens and favors the absorption of exudation. With this idea in mind, the writer began the use of ichthyol in chronic bronchitis in children, that general form, so common, resulting from colds, exposure, etc., as well as that form of bronchitis following measles, whooping cough, and other acute infectious diseases. The following histories of a few cases will illustrate its effects:

CASE I.—B. R., aged 10 years. Parents born in United States. One uncle had died of tuberculosis; otherwise the family history was negative. The child had never been sick with any of the diseases of childhood. The mother said that the boy had had a cough for the last six months. Physical examination gave a general bronchitis, bronchial fremitus and large and small râles all over the chest. The child was given creosote of peptonoid mixture with no result. Then the following was given:

℞ Ichthyol.....gr. xxxii.
Glycerini,
Sp. Aurantii.....aa ʒss.
Aquæ.....ʒii.

In a few days there was marked improvement, and at the end of two weeks the child was cured.

CASE II.—A nursing, seven months old, suffering from broncho-pneumonia, was given ichthyol every three hours, with nausea, vomiting and diarrhea, so it was stopped.

CASE III.—Joseph McD., aged eight years. Parents German. No tuberculosis or rheumatism in the family. Patient had had scarlatina when five years old, and measles about the same time. The child had had a cough for two months. Ichthyol was given with the result that the cough was cured at the end of a month.

CASE IV.—Beryl M., aged five years eight months. Parents English. Family history negative. Had measles and whooping cough when three years old. Ichthyol was given. The first dose caused nausea, but no vomiting occurred. After two weeks patient was improved.

CASE V.—Marguerette Y., aged six years. Parents Americans. Family history negative. Patient had measles and whooping cough twelve weeks ago, and has complained of a cough for the last two months. Ichthyol was given and first dose caused vomiting, but later the child grew to like it. At the end of the fifth day there was a slight improvement, and has been improving.

CASE VI.—Robert J., five years of age. Born in United States. Parents natives of America. Family history negative as far as tuberculosis and rheumatism are concerned. The patient had never suffered from any of the diseases of childhood. When first seen had been suffering from a cough for six weeks, which, as the mother stated, would come and go. Physical signs were those of a general bronchitis with mucoid râles all over the chest. He was given ichthyol in solution two grains t.i.d. At first there was no change in his condition, but at the end of eight or ten days improvement began, and the child has gained in weight and the cough has disappeared.

CASE VIII.—William L., five years of age. Born in United States. Parents have slight cough, but tuberculosis is supposed to be absent in the family. The child had pertussis two years ago. When first seen was coughing for three weeks. Ichthyol was administered and the child improved. While the cough did not absolutely disappear, it was lessened and the general condition improved.

CONCLUSIONS.

From the above cases the following conclusions may be drawn:

1. The first dose often causes nausea, rarely vomiting, and later the child grows to acquire the taste of ichthyol.
2. Children under one year of age do not take ichthyol well.
3. To avoid the unpleasant effects of ichthyol it should be given after meals.
4. Increasing doses are not necessary for good results in children.

The American Association of Urologists was organized on February 22, 1902, essentially for the purpose of further development of the study of the urinary organs and their diseases. Although most of the founders of the Association are specialists in genito-urinary diseases, membership is not limited to those engaged exclusively in this specialty. Thus gynecologists, who embrace renal and vesical surgery in their work, are among the founders, as are also several gentlemen who devote themselves to the microscopy and chemistry of the urine, as well as a number of practitioners interested in the study of the kidney from a medical standpoint. The Association consists of active, corresponding and honorary members, and is in a great measure modelled upon the plan of the Société Française d'Urologie, modified to suit American circumstances and conditions. Whenever possible, the branch associations throughout the United States, British Possessions and Spanish America, will hold their meetings on the same evenings as does the parent association in New York (the first Wednesday in each month). The work of the Association is principally clinical, for the demonstration of new methods in the technique of examination and treatment. The annual meeting of the American Association of Urologists will be held on the last day and the day following the annual meeting of the American Medical Association. The officers of the Association are: Ramón Guiteras, M.D., president; Wm. K. Otis, M.D., vice-president; John Van der Poel, M.D., treasurer; Ferd. C. Valentine, M.D., secretary; A. D. Mabie, M.D., assistant secretary.

PREVENTION OF PHTHISIS PULMONALIS.

BY WILLIAM A. WOOD, M.D., GALLATIN, MO.

Before discussing the above subject it is important to familiarize ourselves with the various channels through which this disease approaches its victims. If we undertake to meet it at its starting points we must bear them in mind. The invasion of phthisis may occur by a tracheal and laryngeal irritation, by an irritation of the bronchial tubes, by hemoptysis, or it may assume a latent type, or again it may take the acute form. Now, what are the clinical features of these different varieties? In the tracheal and laryngeal variety there is a ringing cough, soreness and pain in the trachea, hoarseness of the voice followed by fever and emaciation. The invasion by bronchitis is marked by a short cough, no expectoration in the beginning, but when it does appear, clear and frothy. Sensations of languor and a tired feeling, with chilliness alternated with flushes of heat in the evening, are invariable experiences. Wandering pains in the chest, a quickened pulse and emaciation gradually follow. Physical signs at this stage shed very little light on the pathology of the case. In the latent variety the incipient stage is seldom accompanied by cough, but there is a sense of weight and tightness about the chest with dyspnea on the least exertion. Later on cough sets in with bronchial irritation and many other developments characteristic of the bronchial form, which render a differential diagnosis between them exceedingly difficult. This form is often associated with anemia and suppression of the menstrual discharge in female patients. Hemoptysis is sometimes the first symptom of phthisis, but this may occur quite independently of tubercular lesions. The acute variety fortunately is rare, compared with the other forms. This is what is usually called galloping consumption. It often completes its course in five or six weeks by the development of tubercles and gray granulations in both lungs. Both lungs are rapidly filled with gray granulations and yellow tubercles varying in size from a pin-head to a rape seed. In these cases dyspnea is an early and grave symptom. The face becomes livid and covered with profuse perspiration, respiration 40 to 50 per minute, pulse 130 to 140, cough frequent and accompanied by a muco-purulent expectoration. The lungs

become blocked up and death soon ends the intense suffering of the patient. While there are some widely differing symptoms in these various forms of incipient phthisis there are certain pathological phenomena common to them all. Among them the most prominent and constant are anemia, emaciation and fever. All of these deviations from health are more or less the products of impaired nutrition. To these conditions, then, we must address our special attention. This is the objective point of all our efforts in the prevention of phthisis pulmonalis. Diet, hygiene and medication must be the allied forces to hurl against this relentless enemy of human life. No time should be wasted in a fruitless search for microbes or doubtful remedies, for their destruction. The thing to do first, is relieve urgent symptoms and begin immediately to build up the defensive powers of the system. A constitution that can resist all the injurious influences of its environment can be made to successfully defend itself against the inroads of the tubercle bacilli. Preventive treatment to be effectual should begin with the first appearance of the disease, and all the patient's habit of life should be ordered on new lines in harmony with the objects in view. He should be prepared for an outdoor life in all kinds of weather. He should be provided with suitable clothing for all atmospheric conditions. Every part of his body should be kept warm, dry and comfortable whether the patient is in the house or in the open air. He should never be chilled by cold or be made to suffer from heat. When in the house the air of his room should be frequently changed by free ventilation. Whenever it is possible he should enjoy sunshine. No kind of food or medicine should be allowed to enter his stomach that might impair digestion or excretion. The food should contain the maximum of nutrient material in the most digestible and assimilable form. Moderate, active, and unlimited passive exercise should be provided for outdoor life. Change of climate we will not consider now, for the reason, not many patients are financially fixed to indulge in such luxuries. Medicinal treatment is sometimes a necessary part of preventive measures. Proper tonics are always in order. Quinine, iron and arsenic are often useful in certain anemic conditions; but at all times when it agrees with the stomach, cod liver oil is the remedy. The only restriction to be placed on this thera-

peutic agent is that it must be administered in a form that will be acceptable to the stomach, or produce diarrhea. There is a variety of good preparations to be found which sometimes answers our purposes admirably, and at other times completely fails; but the preparation which I have always found most agreeable to the palate and the stomach, and also most reliable in its therapeutic effect, is Hagee's Cordial of Cod Liver Oil Compound. To the adult it may be given early and late in this disease, three or four times a day in tablespoonful doses. In children, proportionately to the age. A persevering use of this remedy in connection with the other above mentioned requirements will save many valuable lives.

Eightieth Birthday of Dr. Enno Sander.—Dr. Enno Sander, the well known manufacturer of mineral waters, had the eightieth anniversary of his birthday celebrated by a number of pharmaceutical friends, Feb. 26 last. He was as young as any who sat at the festal board at Faust's, and we hope that the next celebration will be under the auspices of the doctor's medical friends, whose name are legion. Upon this occasion the toasts were: "Our Guest," by Henry M. Whelpley; "The Teacher and Pupil," by Prof. Otto A. Wall, Sr.; "Honor to Whom Honor Is Due," by Prof. Henry T. Rohlfsing; "The Pharmacist of Old," Christian F. G. Meyer, Sr.; "Continued Honors," by William H. Lamont; "The Pharmacist of To-day," Otto F. Claus; "His Absent Friends," Prof. James M. Good. Albert E. Ebert, president and historian of the Chicago Druggists' Association, was toastmaster.

On Friday, January 17, 1902, Dr. E. H. Gregory, Professor of Surgery in the University, celebrated his fiftieth anniversary as a teacher of medicine in this city. The place of celebration was eminently appropriate, being the amphitheater in the college, where he had taught so long and successfully. Here, with the young men who are still pursuing their studies on the benches before him, and his former students and colleagues, and old friends and young friends and dear friends around him, he received in full measure and overflowing those sincere testimonies of homage and affection that come from the heart.—*Med. Bulletin, Washington University.*

**THE CHARACTERISTICS OF GENUINE VACCINIA.
SOME STATISTICS OF THE PRESENT
SMALLPOX EPIDEMIC.***

BY WM. M. WELCH, M.D., AND J. F. SCHAMBERG, M.D.,
PHILADELPHIA, PA.

It is essential for the reputation of vaccination that no misconceptions should arise concerning the criteria upon which a diagnosis of true vaccinia is based. Nothing is so injurious to the cause for which Jenner so conscientiously labored as to give to a spurious or false disease the name of vaccinia.

The following may be regarded as the typical course of the vaccine disease. On the third or fourth day after vaccination a very faint redness may be seen at the point of inoculation. This redness gradually increases, while at the same time a distinct and reddish papule is formed, which varies in size according to the extent of the abrasion. On the fifth day the lesion begins to assume a vesicular condition. This is usually seen first at the margin of the site of inoculation. The vesicle gradually increases in size, the contained lymph being at first thin and perfectly transparent. On the eighth day the vesicle reaches its greatest perfection; it is then considerably elevated above the level of the skin and presents a pearly or yellowish appearance. When examined closely it will be found to have, even at an early stage of its development, an umbilicated form similar to that seen in vesicles of variola. About this time there appears around the vesicle an inflammatory circle which is called the areola. During the ninth or tenth day the redness increases, the inflamed skin becomes tense and painful, and streaks of redness often extend a considerable distance from the lesion. The neighboring lymphatic glands become enlarged and painful.

At the same time mild constitutional symptoms appear. Slight rigors, a rise of temperature of one or two degrees, malaise, anorexia, disturbed sleep, etc. Many children, however, pass through the regular course of vaccinia without any apparent systemic disturbance. Occasionally in severe primary vaccinations a macular eruption, designated as *roseola vaccinosa*, and bearing considerable resemblance to that of measles, may appear.

*Read before the Philadelphia County Medical Society, Nov. 13, 1901.

On the eleventh or twelfth day the pock begins to fade, its contents become opaque, and desiccation appears in the centre. By the fifteenth day desiccation is usually completed, although the crust does not fall off until the end of the third or frequently the fourth week. The completed crust is of a mahogany color, rough on its exterior, thin at its centre and periphery with a thick circular ridge between. The scar is at first red, but in the course of a few months becomes paler than the surrounding skin. It is pitted or foveolated, and not infrequently presents radiating bands or striæ of cicatricial tissue.

The query is often asked, what constitutes a successful revaccination? This is a question about which there is some diversity of opinion. Many believe that unless the vesicle and areola observe the course of true vaccinia, the effect is merely local and devoid of prophylactic power. But it is evident on a little reflection that there is no more reason why we should expect the vaccine disease produced by revaccination to be typical than that we should expect smallpox after vaccination to run the typical course of *variola vera*. If there be modified smallpox or *varioloid* after vaccination, so should there be modified vaccinia or *vaccinoid*. From these premises the conclusion may be deduced that as *varioloid* confers immunity against a recurrence of smallpox, so also does the modified form of vaccinia resulting from revaccination remove from the individual whatever susceptibility to the disease may be present.

As the analogy between cowpox and smallpox is in most respects very close, and as *variola* frequently differs in the duration and severity of its local manifestations, so also it must not be expected that the local lesions of vaccinia will invariably follow the typical course just described. In some cases the disease is undoubtedly shorter and milder, while in others it is longer and severer. No deviation, however, should occur in the evolution of the pock; that is to say, it should pass through the stages of papulation, vesiculation, and pustulation. It has been known to appear as late as one month after the inoculation was done, and then develop and run regularly through its course. Likewise the constitutional symptoms are not uniform. They may be very mild or entirely absent.

There are certain false vaccine conditions which claim atten-

tion. The raspberry excrescence, when seen, usually appears from three to seven days after vaccination, beginning as a red elevation at the site of inoculation, quite similar in appearance to the papule of true vaccinia, but instead of advancing to the vesicular stage it remains hard, dense, bright red in color and nodular in form, looking not unlike a small nevus. It is very persistent, remaining usually weeks or months, and is not followed by a scar. This spurious excrescence is more frequently seen since the general employment of bovine lymph. Experience has proven that this raspberry form of the vaccine disease is utterly devoid of protective power against either variola or vaccinia.

There are some physicians who allege that practically all of the lesions produced by glycerinated lymph are spurious.

Dr. F. J. Runyon of Clarksville, Tenn. (*Memphis Medical Monthly*, August, 1901), condemns glycerinated virus, and quotes series of cases in which the lymph, although apparently producing successful vaccinations, failed to protect against successive inoculations and also against smallpox. He says: "When using the glycerinated lymph I had, as I thought, some beautiful results from it, but I now question whether any of these are thoroughly protected from variola. I vaccinated with points (to make sure of protection) those who had recently been successfully vaccinated with the tubes, and observed that in every instance the vaccinia was apparently just as severe as in the primary vaccinations. The converse of the above trial did not hold true, for I found those upon whom the points had been successfully used immune to the glycerinated lymph." The virus was fresh, and that largely employed was made by a prominent Western firm. [The name is mentioned by the author, but is here omitted.] The physicians in adjoining states to whom these results were communicated also found that in the majority of instances the points would take upon those whom they thought they had rendered immune by the previous use of glycerinated lymph. One of the physicians stated that of all the vaccinations done by him with tubes not one that he had seen had left a satisfactory scar. Another wrote that of certain series of vaccinations "the best result he had was in a negro who subsequently contracted smallpox." Similar statements were quoted from half a dozen or more phy-

sicians, the consensus of opinion being that the glycerinated tubes were totally unreliable.

Our experience with glycerinated lymph at the Municipal Hospital has been quite different from that above quoted. It has been employed to the exclusion of all other forms of virus, this being the lymph provided to us by the Philadelphia Board of Health, which obtains it from a different source from that mentioned in the paper above referred to. No one thus far who has been vaccinated previous to exposure has contracted smallpox. About fifty individuals, including physicians, nurses, and attendants, have been continuously and freely exposed to the disease. Nearly all of these were vaccinated with glycerinated lymph, with a successful result in a considerable percentage of cases. Some had very sore arms and sufficient constitutional disturbance to necessitate rest in bed for a day or two. A number of the unsuccessful cases underwent a repetition of the vaccination. In all of these cases there appeared to be full protection. It should be stated that the vast majority of the number referred to had scars from primary infantile vaccinations. In addition to the individuals above referred to as being exposed, there were some sixty or more workmen engaged in the construction of a new pavilion who were in close proximity to smallpox patients. All of these but two were vaccinated with glycerinated lymph, some for the first time, and none up to the present date has contracted the disease.

The two workmen who refused vaccination have both contracted smallpox. One, bearing a good vaccine mark from infancy, has within the past week been brought into the hospital with a well-marked varioloid. The other, disciple of the Christian Scientists, is said to have expressed his desire to contract smallpox. He was treated at his home, and succumbed to the disease. An unvaccinated garbage wagon driver and several other unprotected persons who were exposed upon the grounds of the hospital also contracted smallpox.

The opportunity was afforded of testing the value of glycerinated lymph in primary vaccination in persons exposed in the wards.

One of the nurses who had been employed in nursing smallpox for over two months, and in whom the vaccination was primary, has been found to be absolutely immune. A child of

one year, vaccinated with glycerinated lymph about ten days before, was sent into the hospital with a vaccine roseola which had been diagnosticated as variola. The child was in the smallpox wards about three weeks and remained perfectly well. A colored child about two years old, having some fever, was brought into the hospital with a sister suffering from smallpox. The child was successfully vaccinated with glycerinated lymph on admission, and did not contract smallpox. Several other unprotected children and adults who were vaccinated after admission have been rendered absolutely immune to smallpox.

We have from time to time received in the hospital patients with well-marked and even fatal smallpox in whom vaccination performed some weeks before had failed. We recall one patient, a large stout woman of thirty years, who had been vaccinated without result some years before, and who was vaccinated with glycerinated lymph one month before admission. There was some local reaction, and the physician in attendance was for a time in doubt as to whether or not there had been a successful "take," finally deciding in the negative. The patient was brought into the hospital with confluent smallpox, and died in ten days. From our examination of the patient on admission we were convinced that the result had been spurious.

Such unsuccessful results can scarcely be specifically charged against glycerinated lymph inasmuch as occasional failures with bovine lymph, more particularly with dry points, have been for years common even in persons susceptible to vaccinia or smallpox.

The striking difference in the experience of different observers with glycerinated lymph may be explained in two ways.

It is quite within the bounds of possibility that the virus furnished by the various propagators of the lymph may not be equally reliable. If this be true, it would constitute a strong argument in favor of a government vaccine establishment similar to those existing in England and certain other European countries. The vaccine lymph could be gratuitously dispensed to physicians, thus eliminating the commercial factor in the preparation and sale of vaccine virus.

Or the discrepant results may be explained by diversity of opinion as to what constitutes true vaccinia. Any result which deviates to any considerable extent from the description of pri-

mary vaccination given by Jenner should not be regarded as genuine. There are certain local reactions not infrequently met with after the use of glycerinated lymph, and perhaps other forms of bovine virus, which deviate considerably from the Jennerian delineation. In these cases it is not uncommon to note an abnormal degree of inflammatory action even as early as the second, third, or fourth day. Upon this area there frequently springs up with surprising rapidity a more or less conical or globular blister instead of a typical vesicle. This elevation is thin roofed, readily ruptured, and gives exit to a thin irritating fluid which speedily dries into the form of yellowish-brown bulky crusts, the exudation continuing to ooze out at the margins. After shedding of the crust there is left a faint scar which is devoid of the characteristics of a true vaccine cicatrix. The so-called "takes" which do not protect against smallpox or vaccinia are probably of this nature. While it is impossible to positively affirm that these lesions are entirely devoid of all specific reaction, yet they should not be relied upon to give protection against smallpox. An observation which militates strongly against their even partial "takes" is that they may develop in individuals who are known to be immune against smallpox. Recently such a lesion developed in a physician who has been steadily exposed to smallpox for a long time. Reactions of the character above described are more common in cases of revaccination.

In many successful vaccinations in which glycerinated lymph is employed there is an excessive amount of inflammatory reaction. A sort of dermatocellulitis develops, the redness and swelling involving at times the entire arm. The vaccine vesicle spreads considerably beyond the border of the scarification, reaching often the size of a quarter dollar. Not infrequently this area undergoes necrotic change, giving rise to a slough, which when cast off discloses to view a large, deep, cup-shaped ulcer, which very slowly heals up by granulation. The resultant scar in these cases is apt to be smooth and shining, and devoid of the depressions and bands seen in a typical vaccine cicatrix.

It is surprising that with a virus which is alleged to be free of extraneous micro-organisms such sore arms should be produced. Upon theoretic considerations we would expect such

results to be eliminated by the use of a lymph which contained no active principle save the vaccine matter. It may not be out of place to remark that many propagators of virus are to-day violating an important precept of Jenner in the preparation of the virus. Jenner insisted upon the exclusive use of the clear lymph of the vesicle. In the preparation of the glycerinated lymph the entire lesion is curetted, bringing away lymph, vesicle walls, and broken-down epithelial tissue, all of which is made into a pulp and mixed with glycerine and water. May not the sore arms be possibly due to the admixture of this tissue débris?

The question is frequently asked, "At what age should an infant be vaccinated?" When smallpox is absent from a community this may be delayed until the child has reached the age of three months. During an epidemic of smallpox, however, no age is contraindication to the performance of vaccination. Children born at the Municipal Hospital of mothers suffering from smallpox are vaccinated immediately upon their entrance into the world. Recently a woman with a mild varioloid gave birth to an infant of seven and a half months' development. The child was successfully vaccinated in two places, although it later succumbed to varioloid, with which it had been infected *in utero*.

Many physicians hesitate about vaccinating individuals who are suffering from some other disease. At the Municipal Hospital recently scores of patients suffering from diphtheria and scarlet fever were vaccinated as a precautionary measure. The vaccination did not unfavorably influence the original disease, and on the other hand the course of the vaccinia was in no case unusual.

Since the beginning of the present year (1901) over five hundred cases of smallpox have been treated at the Hospital. *Of this number not a single patient has been recently successfully vaccinated.* The shortest period elapsing between a successful vaccination and the contraction of the disease was five years. In this case, which occurred in a boy eleven years old, the eruption consisted of only a score or so of papules, which scarcely developed into vesicles, but dried up in a few days. It was not found necessary to confine the lad to bed.

While a majority of the patients admitted were unvaccinated,

a very large number had been vaccinated in infancy. To our knowledge none, save the boy mentioned, had been successfully vaccinated within the past ten years.

The writers believe that it may be laid down, as a rule, that if a child be successfully vaccinated in infancy, and again at the age of puberty, the protection will be permanent. The exceptions to this rule, however, may be sufficiently frequent to warrant a repetition of the vaccination whenever there is exposure to smallpox.

The opinion has been advanced, more especially by Marson of London, that the degree of vaccinal protection in an individual is directly proportionate to the number of insertions made. According to the experience of the writers, the *quality* of the vaccine scars is a far more reliable indication of the degree of protection than the *quantity*. A perfectly good vaccine cicatrix presents well-defined margins, is reticulated or foveolated, and looks as if it had been stamped into the skin with a sharply cut die. It has been said that genuine pocks are frequently not followed by scars; but without denying this absolutely, we would advise that such assertions be regarded with a considerable degree of skepticism. The general mortality rate from smallpox, as far as we are able at the present time to estimate it, has been about 20 per cent. This is merely an approximate statement, as the ultimate outcome of the two hundred cases now in the hospital cannot be accurately predicted. The mortality rate among the vaccinated has been about 11 per cent., and among the unvaccinated about 33 per cent. Of the former class the mortality rate of those bearing good scars was about 4 per cent.; fair scars, about 8 per cent., and poor scars about 20 per cent. In concluding, the writers desire to express their condemnation of the use of tight-fitting shields. These, by constricting the circulation of the surrounding skin, serve to increase the inflammation and tendency to early oozing. There is no objection to the use of a shield for a few hours until the vaccine lymph has dried upon the abrasion, but its continuous use during the development of the vaccine lesions is apt to do more harm than good.

A VALUABLE REMEDY IN INTESTINAL IRRITATION.

BY LOUIS LEROY, A.M., M.D., NASHVILLE, TENN.,

Professor of Pathology, Vanderbilt University; State Bacteriologist of Tennessee, Etc.

While terraline has been restricted in its use largely to cases of bronchial inflammation or in allaying troublesome coughs, or for its nutritive value in conditions of emaciation, it seems that one of its most useful actions and broadest fields has been largely overlooked. This is the soothing effect which it has upon the mucous membrane of the gastro-intestinal tract. The oil is perfectly bland and tasteless, and so thoroughly refined that it lacks the irritating fatty acids which are nearly always present in any of the oils used for internal administration. These qualities permit its administration in good-sized doses, over prolonged periods of time without causing digestive disturbances, eructations or surfeiting the patient. This will be found to afford relief to a marked degree in cases of tubercular ulceration of the intestine, and in the pain of gastric ulcer. In pyloric carcinoma, with stenosis, a moderate dose administered before meals seemed to facilitate the digestion and favor the ready passage of the food through the pylorus, and cause some remission in the pain.

In one case of gall-stone which recently came under my care, terraline was substituted for olive oil with the most pleasing results. The patient took the large amount recommended (16 ounces) more readily than would have been the case with olive oil and passed safely through the attack. Since the first attack she has been kept on tablespoonful doses three times a day for two months without any inconvenience, and not expressing any distaste for the remedy. There has so far been no indications of a return of the trouble.

Terraline also has proved in our hands a pleasant adjunct in the administration of cathartics. With these the amount of griping is very much diminished, and larger doses can be given, and a very thorough effect obtained without the unpleasantness which would otherwise be produced.

When used for its sedative effect on the gastro-intestinal mucosa it can be given in larger doses than one usually recommended when its effect upon the respiratory tract is sought. Tablespoonful doses, or even ounce doses three times daily, will

be found to be well borne. As the oil is of mineral origin and chemically nearly as stable as paraffin, it may be combined with any of the other remedies desired, directly if they are mixable with the oils, separately if not, but with the assurance that each will have its own therapeutic effect without detriment from the other.

The results which we have had in the past with terraline indicate quite a field of usefulness which can readily suggest itself from the foregoing.—*Medical Examiner and Practitioner*.

The Clinic Club.—For the purpose of bringing into closer relationship the clinicians serving in the various dispensaries of Washington University, an informal organization called The Clinic Club has been formed. The club meets on the fourth Wednesday of each month in the faculty room of the Polyclinic Building. The first half of the evening is usually devoted to the brief presentation of patients and specimens, the latter half to an informal reunion during which lunch and liquid refreshments are served.—*Med. Bulletin, Washington University*.

Death of Dr. Christian Fenger.—Dr. Christian Fenger, one of the best known surgeons in Chicago, died March 8, at the age of 62. He was born in Copenhagen, Denmark, served as a surgeon in the war between Denmark and Germany, and was an interne in the Royal Frederichs Hospital, Copenhagen. He was also a surgeon in the Red Cross Ambulance Corps in the Franco-Prussian War, and prosector and *Privat docent* at the Copenhagen City Hospital. He went to Egypt as a member of the sanitary council, and was appointed surgeon of the Khalifa district of Cairo. He removed to Chicago in 1887. At his death he held the chair of clinical surgery in Rush Medical College, University of Chicago, and was a frequent contributor to medical literature. The king of Denmark had honored him with a knighthood. Dr. Fenger's reputation extended far beyond the confines of his adopted home. In his death surgery in America loses one of its most distinguished foreign-born exponents.

CORRESPONDENCE.

GERMANY INTERESTED IN PRE-COLUMBIAN POTTERY OF AMERICA.

NEW YORK, Feb. 10, 1902.

Sir—I am informed by a friend, a Spanish priest in Lima, Peru, that the price of those little anthropomorphous clay potteries called "huacos" (graves) has reached an exorbitant figure; owing to a sudden demand for them in Germany. Quite recently an agent for a Berlin museum scoured the towns of old Peru and purchased all the human figured pottery he could find. Those representing disease, mutilation, were greedily snapped up. He paid for one little pot the equivalent of \$100 in American gold. All kinds of that pottery are now exceedingly scarce there. Evidently German scientists are preparing not to be caught napping again, through ignorance of the meaning of the representations of disease on pre-Columbian American pottery.

ALBERT S. ASHMEAD, M.D.

The Cleveland Medical Journal has just made its initial bow. The January, 1902, number appeared in March, but the publishers promise to catch up in a short time, so that each number shall appear on the first of the month. The new journal continues the *Cleveland Medical Gazette* and the *Cleveland Journal of Medicine*, these two having been consolidated, to form the one before us. It is a handsome octavo, 7x9 inches in size, printed upon good paper, in a very thorough as well as satisfactory manner. In general appearance it has very much a similar make-up as the London *Practitioner*, whose superiority from both an editorial and typographical point of view is universally conceded. The *Cleveland Medical Journal* is edited by P. Maxwell Foshay, M.D., editor; Edward Lander, M.D., associate editor, and Edward Perkins Carter, M.D., assistant editor. It is published in Cleveland by the Cleveland Medical Journal Company, composed of physicians, the subscription price being two dollars a year. It is an excellent journal, of a high order of merit, and promises to take a leading place among American medical monthlies.

ST. LOUIS

Medical and Surgical Journal.

A. H. OHMANN-DUMESNIL, A.M., M.D.,
Editor and Proprietor.
No. 5 SOUTH BROADWAY, ST. LOUIS, MO., U. S. A.

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EDITORIAL.

THE LADY PHYSICIAN.

We have recently had the pleasure of reading an editorial in a medical journal, which is characterized more by the number of its pages than by its weight, having the above title. We also receive an exchange whose title is the *Woman's Medical Journal*. We are really much surprised at the latter. The *Ladies' Home Journal* should have served as an example, but our physicians of the female gender have preferred using the title given above. As a cook lady or a wash lady or even a scrub lady might ejaculate, "What horrid taste," that was. To quote our ultra-esthetic cotemporary:

"The demand for lady physicians has greatly increased in recent years. There are said to be now 6,000 of these in the United States alone. In English countries there are 396 lady physicians. Many of these connect with their medical work that of administering spiritual consolation, thus giving counsel

for the soul as well as for the body. The first lady physician was Elizabeth Blackwell, who graduated as such in 1849. Three years later Philadelphia boasted of six lady doctors. In 1889 there were 3,000 registered in the United States. The first lady physician in France was Madeline Bres, who graduated in 1875, and there are now eighty-five in that country, seventy-one of whom are practicing in Paris. Under Lady Dufferin's influence hospitals in India entirely in charge of women increased to thirty as early as 1888. In 1896 the number had swollen to 133. In 1894 the Sultan of Turkey forbade women to study medicine in his dominion, but foreign lady physicians are yet permitted to practice there. Egypt has two lady doctors, twenty are in Italy, while Roumania, Norway, Sweden, Denmark, and Finland each have lady doctors, who are doing good work. In fact, lady physicians are no longer an experiment, but are fast becoming an important factor in moral influence. No one is better fitted to become just what a physician should be—an angel of mercy to the afflicted—than a Christian lady. Gentle by birth, and refined by proper education, she may exercise the most benign influence upon those with whom she comes in contact, even to the salvation of their souls."

We are sorry indeed to see such an ill-advised expression creep into the pages of a medical journal. There is certainly nothing nobler than a woman and a womanly woman. The mother of Christ was not a "lady," nor was the mother of the Grachii. This mawkish, ill-placed idea of "lady" must be dropped by serious men. It is equivalent to that of "gent," and of just about as much importance and force. We are tired of the "lady," and so are women. Sarah Hackett Stevenson is a woman, and we admire her all the more because she is. A woman has a spine; a "lady" has a mass of gelatinous matter of dubious quality instead of it.

The mothers of all our great men were women. "Ladies" never bear children if they can help it. A woman doctor is one with a mission; a "lady doctor" parts his hair, his whiskers and his name in the middle and wears trousers. God forbid that we should have "lady" doctors in trousers or skirts. There is a limit to human endurance, but certainly all rational beings will admit that it must be drawn at the "lady" doctor, male or female.

The writer of the editorial we have quoted has not been sufficiently thorough in his illustrations. There are women doctors in Russia prominent and eminent, among whom is Pauline Tarnowsky, who has written works which are unfortunately unknown to most English readers. Her researches in anthropology and other subjects are known throughout Europe, and almost entirely if not totally ignored in this country. Such a colleague would certainly repel the name of "lady" doctor, and justly so. No, let us leave the true woman remain upon her pedestal and not try to transform her into a "lady." We have too many of the latter already posing as idols which investigation shows have feet of clay. Our mothers were or are women, so are our wives and daughters; let us not throw them down from their high positions. The "ladies" will fall down of themselves.

THE MISSOURI STATE MEDICAL ASSOCIATION.

As announced in our March issue, this Society will meet at St. Joseph, May 19, 20 and 21 next. We have not yet been in receipt of further details and cannot give them to our readers. From private sources we learn that it promises to be largely attended, and that the scientific programme will be a large one. We are more than pleased to know this, as the medical profession of Missouri must awake to the fact that it forms one of the important factors of the capital state of the Mississippi Valley. The Association needs more members to make its true strength felt throughout the length and breadth of the Commonwealth, and unless all unite as a unit in the only way offered—that of becoming members of the State Association—they can expect but little in the way of accomplishing results.

We have been attending the meetings of the Association for nearly a quarter of a century, and have noted a revival of interest in its proceedings in the last few years. At one time a spirit of decadence was beginning to creep in, but by a strong and united effort a new impulse was given, and the effect of this was felt by the infusion of new blood. All the older members should make it a point to induce their younger colleagues to join, and in that way become acquainted with the older members, whose acquaintance is certainly worth making. It is

not only this which is pleasant, but the interchange of ideas and the listening to the experiences of older and more experienced members will lead to increased knowledge and a producing of ideas. As a school of instruction we know of no better one than in state medical associations, and our advice has always been to always attend every meeting and gain thereby. Do not only attend the meetings but contribute your share, either in a paper or by discussing those of others. No one need feel any hesitation—the door is open to all and all are welcome to contribute in either way.

A piece of direliction of which the greatest number seems guilty is non-attendance on the first day. Were there more present from the opening session to the closing one many more papers could be read, and the meetings made much more profitable; and were purely legislative matters referred to committees, as they should be, much valuable time would be saved. Our advice is to all to come. Take a Burlington train and arrive fresh and eager for good work, and the State Medical Association will not only be the better for it, but the entire medical profession of the state.

THE AMERICAN MEDICAL ASSOCIATION.

The next meeting of the American Medical Association will take place at Saratoga Springs, N. Y., June 10 to 13 inclusive, 1902. That this is destined to be an important one in the annals of the Association goes without saying. We are also certain that, although the location of the place of meeting is rather to the East and at a fashionable watering place, the attendance will be large and representative. In fact we expect great things of this meeting, more especially in view of the fact that the corps of officers is such as it is. Those of our readers who are not acquainted with it will readily appreciate the fact that they are workers when the following roster is presented to them:

President.—John A. Wyeth, New York.

First Vice-President.—Alonzo Garcelon, Maine.

Second Vice-President.—A. J. Stone, Minnesota.

Third Vice-President.—A. F. Jonas, Nebraska.

Fourth Vice-President.—James A. Dibrell, Arkansas.

Secretary.—George H. Simmons, Illinois.

Treasurer.—Henry P. Newman, Illinois.

Chairman Committee of Arrangements.—G. F. Comstock
Saratoga Springs, N. Y.

Such an array of distinguished names is in itself strong enough to attract physicians from all parts of the United States, and the personal friends which each and every officer possesses are sufficiently strong and influential to induce others to come and swell the mighty throng which will gather at Saratoga in June. We expect much of this meeting, and we do not think that we will be disappointed.

The chairmen and secretaries of the various sections are exerting themselves to have all the papers they can possibly obtain, and from what we have been able to judge they are succeeding very well. In fact from present indications we are inclined to think that, from a scientific point of view, the coming meeting will be a pronounced success. So far as the social side is concerned we have no fears whatever. Society will, as it always has done, receive the members with open arms; and whilst the Springs will not be at the height of the season, there will be a number of visitors sufficient to make everything pleasant and enjoyable. We are certain that, from this point of view, no one who attends the meeting will be disappointed.

Of course the American Medical Editors' Association and that of medical colleges will also hold their annual meetings. The editors will tell one another how to get advertisers and how to run medical journals, and then go back home and fall in the same old rut. The medical colleges will continue to make more doctors, to the confusion of all; but taken altogether the meetings will be pleasant and of advantage to all.

Banquet to Dr. E. H. Gregory.—Under the auspices of the St. Louis Medical Society, the medical profession of St. Louis will give a testimonial banquet to Dr. E. H. Gregory, who for fifty years has been an active teacher of medicine, probably longer than any other man living. The banquet will be held at the Planters' Hotel, April 17, and will doubtless be one of the largest and most impressive affairs of the kind ever held. A large number of guests will be invited, including all the ex-presidents of the American Medical Association, out of compliment to Dr. Gregory, who was president of the Association in 1887. A committee, composed of Drs. F. J. Lutz, N. B. Carson, J. P. Bryson, C. H. Hughes, W. B. Outten and H. W. Loeb, has the matter in charge. The committee on invitations is unique in that it is composed of one member of every class taught by Dr. Gregory, fifty in all.

SOCIETY PROCEEDINGS.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting January 7, 1902.

JOSEPH COLLINS, M.D., President.

MYASTHENIA GRAVIS PSEUDOPARALYTICA.

Dr. Frederick Peterson presented a woman of thirty-eight, the mother of two children, who had been first seen by him in October, 1900. She had been sent to him by Dr. Knapp, of Mount Vernon. For several weeks a difficulty in speech had been noted, and also some dysphagia, the condition resembling, to a certain degree, bulbar paralysis. There was no history of specific disease or of intemperance. She had no pain, not even headache. Examination showed some weakening of one side of the mouth, slight deviation of the tongue to the right and a very peculiar manner of speech, a dysarthria that had no real resemblance to that of bulbar palsy, general paresis, multiple sclerosis or any of the common types of difficulty in speaking. It seemed almost as if assumed, as of hysterical simulation. There was no atrophy of the lips or tongue, and no actual paralysis of any of the muscles or of the muscles of the throat. The gait was an imitation of a spastic gait, but without spasticity. She was anemic, very weak and with a weak pulse and heart. The pupils reacted normally. The knee jerks were rather subtypical. There was no weakness of the eyelids, such as the ptosis described in many cases. She was pregnant, and in March, 1901, had a normal child. She was seen again in May and in November, 1901. The condition of pseudospastic gait and pseudobulbar dysarthria remained unchanged at both of these examinations. There was quick exhaustion in mastication, speech, swallowing, walking, etc. This disease, the speaker said, was sometimes known as asthenic bulbar paralysis, asthenic paralysis, bulbar paralysis without anatomical lesion, or myasthenia gravis pseudoparalytica, and had been described by Erb, Oppenheim, Hoppe, and many others. The symptom-complex in typical cases consisted of dysarthria, dysphagia and masticatory weakness, with corresponding paresis of the labial, glossal, palatal and masticatory muscles. The paresis might affect the upper facial muscles and those of the

extremities. There was no atrophy and no signs of degenerative reaction. The sensorium remained free. The disease fluctuated from time to time as regards the severity of the symptoms. The sphincters and reflexes were not appreciably affected. The course might be periodic, acute, subacute or chronic. The prognosis was unfavorable, though patients had recovered. Several autopsies had been made with negative findings.

Dr. B. Sachs said that he had seen only one other case. In the one just presented the clinical picture was so distinct that there could hardly be any doubt about the diagnosis. Evidently the cases were very rare, for they were not of a nature to be readily overlooked.

Dr. Joseph Collins said that he was under the impression that the case under discussion would eventually become an atypical one of glossolabial pharyngeal palsy. There was nothing in the case which reminded him of the cases of asthenic bulbar paralysis that he had seen. He would not include under asthenic bulbar paralysis any patient who presented the symptom-complex of a spastic parietic condition. It was entirely opposed to our knowledge of the disease to find exaggerated knee jerks and tendon jerks, and for this reason he would rule out the present case from the category of true asthenic bulbar paralysis. Moreover the woman seemed to be beginning to develop atrophy of the lips. The first case of asthenic bulbar paralysis to be described in this country was one that he had long had under observation. That woman found that while she could chew one or two mouthfuls she could not continue to do this, and the same was true of muscular acts in general; there would be sudden evidence of exhaustion. Having gone through two or three critical periods characterized principally by the phenomena of surgical shock, she had practically recovered completely, inasmuch as there were no active symptoms of exhaustion present. Her facial muscles though presenting no evidence of atrophy still did not respond energetically to conscious stimuli, and the gait was a somewhat shuffling one.

Dr. Peterson said that his first impression was that this was a case of true bulbar palsy, but in the year and a half which had elapsed since then there had been no true atrophy of the face, and no true spastic condition. The knee jerks were

active, but not exaggerated, and there was certainly no ankle clonus. It was very easy to demonstrate the presence of muscle exhaustion. It was, of course, possible that later the case might present the evidence of true bulbar palsy, but certainly it did not do so at present.

A CASE OF MORPHŒA.

Dr. J. Frankel presented a young woman, thirty years of age, an artist by occupation. The family history was negative, and she had been well with the exception of a severe attack of malaria eight years ago. About five years ago blotches began to form along the course of the sciatic nerve, and were at first tender, but subsequently underwent atrophy. When first seen by the speaker the examination of the nervous system was practically negative, but there were areas of atrophy of the skin. She had improved considerably since first coming under observation on January 29, 1901. His diagnosis was morphœa or disseminated scleroderma.

THE REPORT OF A CASE OF SPINAL CORD TUMOR SUCCESSFULLY OPERATED UPON.

Dr. Robert Abbé made this report. The patient was an athletic man of thirty-two, who had been first seen in April, 1900. He had been well up to three years before, when after a fatiguing game of golf he was seized with pain between the shoulders. This disappeared within a few days. Subsequently he noticed that the fingers began to be numb, and became flexed. Then the legs and arms became similiarly affected. Dr. Dana prescribed large doses of iodide of potassium, thinking the case one of spinal cord tumor. Various consultants saw the case, but he became suddenly worse. When seen by Dr. Abbé, the fingers were tightly flexed into the palm. On April 30, 1900, he operated upon the spine, removing the laminæ of the fifth, sixth and seventh cervical, and the first, second and third dorsal vertebræ. A thin layer of a whitish substance was found bulging backward, and on cutting into it a dark tumor was revealed, which measured two inches in length and was attached to the anterior wall of the canal. On removing the tumor, the hemorrhage was not severe. Convalescence was uneventful. Some of the muscular and sensory conditions were improved. Dr. F. C. Wood, the pathologist of the hospital, reported that the tumor was a sarcoma of the spinal cord.

Dr. C. L. Dana's report of this case was also read. The symptoms began, this report stated, in 1896. They did not progress much until March, 1898. He had been first seen by Dr. Dana in October, 1898. There was exaggeration of the deep reflexes, ankle clonus and wrist clonus; there were occasional attacks of vertigo, and he was particularly sensitive to cold. There was no distinct differentiation of cutaneous sensations, though the temperature sense was rather more disturbed than the other senses. Just prior to the operation by Dr. Abbé, the following condition was noted. There was total paraplegia with the legs greatly contractured; the hand was in the position of ulnar paralysis; the reflexes were all exaggerated. The right arm showed anesthesia to all forms of sensation; the left arm showed no anesthesia. Apparently the disease began in the eighth cervical and first dorsal segments of the cord. While spinal tumor had been suspected from the first, Dr. Dana said that he had been inclined to believe that there was some meningeal complication. On the whole, the picture at this time was very much like that of hypertrophic pachymeningitis. The operation revealed no meningeal complication; only tumor of the cord and the consequences of pressure.

Dr. V. P. Gibney said that he had seen this patient on June 6, 1900, and had found complete paralysis of the lower extremities associated with a high degree of spasm. The thighs were strongly flexed and the legs upon the thighs, so that the heels were pressed against the buttocks. On October 30, 1900, under gas and other anesthesia, he had divided fascia and muscles about the hips, dividing the hamstrings and the Achilles tendon, and getting the limb into much better position. Plaster of Paris bandages were applied from the toes to the free ribs. A second operation was done on November 15, 1900, and by this still further correction was obtained. On January 3, 1901, all plaster dressings were removed, and posterior splints were employed in connection with traction. The spasm of the limbs grew less. On February 5, Dr. M. Allen Starr saw the case, and made a diagnosis of complete degeneration of the cord. When examined last fall it was found that the spasm was fast disappearing, and that there were little or no contractures about the joints. There was no evidence of recurrence of the tumor, and the result under the circumstances seemed to be all that could be expected.

Dr. B. Sachs said that he had reported about two years ago a case of sarcoma pressing upon the cauda equina, and the success of the operation had been very gratifying. The diagnosis had been made from the area of pain and from the fact that pressure upon a definite region just to the right of the spinous process of the second lumbar vertebra caused exactly the same pain as that of which the patient complained. The diagnosis was confirmed at the operation, the tumor presenting in the incision. It was extra-dural and was completely enucleated. The spinal cord had not yet been invaded. If there were any reason to suspect spinal tumor the operation should be done early. In the case just referred to, if the operation had been postponed even for a short time the cord would have been invaded, and paraplegia would have been the result. The inclination of the neurologists to make a diagnosis of pachymeningitis did not seem surprising, and was to be explained by the length of the tumor. Even if the case were one of pachymeningitis he did not think any harm could be done by an exploratory laminectomy.

Dr. Abbé, in answer to questions, said that the tumor was intradural, and that it started in the medullary tissue, and distended the spinal canal, not into the vertebral canal, and distended the spinal cord.

Dr. Joseph Collins said that the neurologists had heretofore relied too largely upon pain in making a diagnosis of spinal cord tumor, although probably the majority of such tumors were associated with pain. He now had under observation a patient in whom the symptom-complex was an ataxic paraplegia, and he was beginning to think that the case was really one of sarcoma. Seven or eight years ago he had seen in the Hospital for Nervous Diseases a case that had been diagnosed as pachymeningitis, but some months later he had made the autopsy, and had found a tumor which could have been very easily removed by operation.

SOME REMARKS ON SCLERODERMA AND SCLERODACTYLIE, WITH
SOME REMARKS ON ITS THERAPEUTICS.

Dr. B. Sachs read a paper with this title. He said that most neurologists seemed disposed to accept the theory that this disease was an angio-trophoneurosis, though many were inclined to look upon it as originally a nervous disorder. It was

certainly not a purely spinal affection. There was a typical facies of scleroderma, enabling one to make the diagnosis at first glance; he referred to the peculiarly thin nose, the hollow cheeks and the retracted lip. All sorts of therapeutic measures had been adopted without much benefit. Among the remedies which had proved of decided benefit in certain cases was thyroid extract. The first case reported by Dr. Sachs was that of a woman of fifty-four years, who had been first seen in November, 1901. The symptoms of scleroderma had developed four years previously. Many dermatologists had seen her and prescribed for her without the slightest benefit to the scleroderma. Thyroid extract was prescribed, and it benefitted her so greatly that she continued its use without permission. When seen again some time afterward she was greatly emaciated, but all of the symptoms of scleroderma had disappeared. She was directed to stop the thyroid extract at once, and after a time to resume two grains, three times a day. The speaker said that he had seen her only recently, and had found her perfectly well, though it was necessary to keep up small doses of the extract or the symptoms of scleroderma would return. The second case was that of a young lady of twenty-four, who had also been benefitted by this treatment. A radiograph of this patient's hands was exhibited to show the attenuation of the bones. Another case was interesting in that the scleroderma followed an injury, the piercing of the hand by falling upon a letter file. Eight months after this injury the skin of the hand became hard, discolored and tense, and the condition was aggravated by cold weather. An ex-ray picture showed no changes in the bony structures. There was such slight benefit from the thyroid extract that it was discontinued, and the man's condition remained at present unchanged.

Dr. E. B. Bronson said that a distinction should be made between simple idiopathic atrophy of the skin and scleroderma. Circumscribed atrophies of the skin occurred in various places, and although they might present a hardness it was very different from the hardness of scleroderma because there was a thinning and an atrophy which was not present in scleroderma. Scleroderma was very frequently followed by atrophy, but atrophy was not an essential part of the disease. In the so-called diffuse form there was no change in the appearance of the skin

in a typical case, and the change was noted only by the sense of touch. The cases reported in the paper were of the diffuse variety, but this class of cases could be conveniently divided into a limited and a universal form. The more or less limited diffuse form came on rather suddenly after an exposure to cold or after any injury, and at first the functions of the part and the appearance were not changed, but the sense of touch would enable the physician to at once recognize the existence of scleroderma. The generalized diffuse form sometimes followed exposure, but it was more commonly due to some central trouble. It was only after some atrophic changes had taken place that there was visible loss of substance. At the stage of maturity the face of such a person was not shrunken, according to his experience—in other words, the contour was not altered, but expression was entirely wanting. The circumscribed form of scleroderma was totally different, and was called by the English by the rather absurd name of morphœa. Instead of being ill defined at the margin it was sharply limited, and was usually associated with a change of color, usually being darker than the surrounding skin. It often presented a lilac border. In this form there was simply a scleroderma without atrophy. In most of these cases recovery was spontaneous. Some years ago he had observed a peculiar case in which the diffuse form had been converted into the circumscribed variety or morphœa.

Dr. Joseph Fraenkel said that he had seen altogether nine cases of scleroderma, and had become impressed with the idea that this term included several different conditions. There were three types—the circumscribed, the generalized and the secondary forms, resulting from arterioscleroses, chronic rheumatism and very many other causes. An example of the secondary form was a case in which the patient suffered from myocarditis and angina pectoris. There finally developed along the inner aspect of the left arm a line of induration of the skin, which ultimately became atrophied. The only variety which seemed to yield readily to the thyroid extract was the circumscribed form.

Dr. B. Sachs said that the name scleroderma was rather unfortunate because it was evident from the radiographs presented that other tissues besides the skin were affected, only the muscular tissues seeming to be exempt. The cases described by Dr. Bronson had probably been observed in the early or middle stages of the disease. A point of value in the diagnosis was the absolute immobility of the skin, the latter appearing to be glued to the parts underneath. In his cases he had used only the powdered thyroid gland, given in capsules, for in previous years he had found the extract entirely unreliable.

BOOK REVIEWS.

Transactions of the American Orthopedic Association. Fifteenth Session, held at Niagara Falls, June 11, 12 and 13, 1901. Vol. XIV. 8vo., pp. 374. [Philadelphia: Published by the Association. 1901.]

The present volume of Transactions is not only interesting, as are all emanating from the American Orthopedic Association, but it is easily the best one so far issued, and is also the superior of its predecessors. A reference to its pages will demonstrate this to any one familiar with the work done by this society for the past fifteen years. There is a progressive improvement in the quality of the contributions made, which can be observed from year to year, and it will now be indeed a difficult matter to exhibit so much amelioration in view of the high average which has been attained and which is apparent in the volume before us. It is this Association and its Transactions which have placed American Orthopedics on the high plane now occupied by it and which is second to that of no nation.

The volume before us is unusually rich in good contributions, and these are illustrated in a very full manner and one which is unusually good. The President's address, by Dr. Arthur J. Gillette, on Injuries to the Spine from an Orthopedic Standpoint, is not only interesting but full of good and valuable points. Abscess in the Posterior Mediastinum in Connection with Pott's Disease—the Report of a Successful Operation for the Drainage of Such an Abscess—by Dr. Joel E. Goldthwait, will prove of more than ordinary interest to surgeons, as it deals quite thoroughly with diagnosis and technique. A second paper, on the Mechanics of Lateral Curvature as Applied to the Treatment of Severe Cases, is contributed by Dr. Robert W. Lovett. In connection with the first paper this one begins the thorough rounding out of the subject.

Further Observations on Rapid Osteoclasia for the Correction of Rhachitic Deformities of the Legs, forms the basis of a paper by Dr. Wallace Blanchard. A very useful contribution and which will prove of value to general practitioners is that by Dr. Frank E. Peckham, entitled General Remarks on Painful Affections of the Feet. A very interesting and well illustrated paper is that on Costume Deformities, by Dr. E. H. Bradford. We would have liked to see it longer. As it stands it can be adopted by dress reformers as one of the best documents contributed on the subject in many years.

Dr. A. J. Steele speaks of Multiple Pathologic Dislocations: (a) Hip; (b) Wrist. Primary Sarcoma of the Spine, by Dr.

James K. Young, is a good study of the subject. An Analysis of One Thousand Cases of Caries of the Spine is given by Drs. Hilton Waterman and Charles H. Jaeger. Dr. Henry Long Taylor gives the Effect of Osteitis of the Knee on the Growth of the Limb in an interesting manner. Mr. Noble Smith contributes a notable article on Dupuytren's Contraction of the Palmar Fascia. It is what we could expect of that well-known London authority. Observations on Broken Necks, by Dr. Reginald H. Sayre, like all he writes, is of a superior quality as a paper. The concluding article of the volume is on the Surgical Treatment of Congenital Club-hand, by Dr. Paul Redard of Paris. As usual, his contribution is valuable and applicable.

The papers mentioned by no means include all those read at this meeting, but have been chosen at random as an index of the value of the proceedings and to indicate the sort of work which is done by the Association before which they were read. As we have had occasion to state upon former occasions, we are proud of the Association and of the scientific work which it does. It is just such work which is destined to elevate the opinion in which American medicine is held abroad and make it esteemed at its true worth.

Diseases of the Intestines. Their Special Pathology, Diagnosis and Treatment. With Sections on Anatomy and Physiology, Microscopic and Chemic Examination of the Intestinal Contents, Secretions, Feces, and Urine; Intestinal Bacteria and Parasites; Surgery of the Intestines; Dietetics; Diseases of the Rectum, etc. By JOHN C. HEMMETER, M.D., Philos.D. In Two Volumes. Vol. II: Appendicitis, Tuberculosis, Syphilis, Actinomycosis of Intestine, the Occlusions, Contusions, Rupture, Enterorrhagia, Intestinal Surgery, Atrophy, Abnormalities of Form and Position, Thrombosis, Embolism, Amyloidosis, Neuroses of the Intestines, Intestinal Parasites, Diseases of Rectum. 8vo., pp. 679. With Plates and many other Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, Vol. II., \$5.00 net. Set Complete, \$10.00.

We have been waiting for this volume with a certain amount of impatience, not unmixed with a certain quantity of pleasurable anticipations, which have been more than fulfilled by the appearance of the looked-for concluding half of this magnificent, thorough and valuable treatise. The present volume is a fit companion work to Vol. I., and the author may well be proud of his achievement. The writing of two treatises, one on Diseases of the Stomach and the other on Diseases of the Intestines, was certainly an undertaking which would have appalled many a brave heart, and yet Dr. Hemmeter applied himself to his work with ardor and enthusiasm, such as only a love

of his subject and a thorough acquaintance with it could inspire. That the confidence which filled him was deserved, the appearance of this concluding volume fully justifies and confirms. A critical examination of the book before us will only confirm every word written above, and if this reading be referred to actual experience the physician will appreciate the thoroughness and acuteness of observation which characterize every page of this treatise.

The author begins with a very thorough consideration of appendicitis, and in this he shows his complete mastery of the subject. In the second chapter we are presented with a consideration of infectious granulomata of the intestine and tuberculosis of the intestine. Whilst this is a comparatively short chapter, the subjects are well considered and in a thorough manner. A very full chapter, and one full of the most valuable suggestions, is the third, which is devoted to intestinal occlusion. In this very thorough chapter all the forms of intestinal occlusion, including enterostenosis, strangulation and internal herniaform, incurvation of the intestine, intussusception, volvulus and axial torsion of the intestine, as well as other forms of occlusion and stenosis, are fully considered. The traumatic troubles of the intestine, such as contusions, rupture, and perforations, are disposed of in Chapter IV., whilst enterorrhagia occupies a very short succeeding one. The Clinical Aspect of Intestinal Surgery; Borderlines Between Medicine and Surgery takes up an important chapter. The two succeeding chapters are pathological in character, being concerned with atrophy of the intestine and abnormalities of form and position. These chapters will be found of more than ordinary value, to the operative surgeon more especially, and furnish more than ordinarily valuable guides to the operator. Whilst not very long, these chapters are deserving of close attention and serious study.

Chapter IX. is devoted to Diseases of the Intestinal Blood-Vessels and Influence of Intestinal Affections Upon the Blood. To those who are in the least interested in hemology much interesting and useful information is given in this chapter. In the succeeding one Intestinal Neuroses are considered.

The Parasites of the Intestinal Canal are the subject of Chapter XI., which is an unusually rich and valuable one. The concluding chapter is devoted to Diseases of the Rectum. We observe in this that the author is very much in favor of Martin's method of examination as well as of his instruments. We are sorry that he dismisses the subject of pruitus ani so summarily, as this is certainly an *odium medicinale*.

In conclusion, the book is a most excellent one, thorough in its scope, and calculated to fill all demands which may be made upon it. The literature which is appended to each chapter is remarkably full, and altogether the book is beyond our expecta-

tions. It is easily the best one which has appeared on the subject in the English language, and the author deserves the thanks of the medical profession for having written it. The publishers have made a handsome, well printed book of this volume, as they did of the other, and it should certainly be in every physician's library.

Handbook of Bacteriological Diagnosis. For Practitioners. Including Instructions for the Clinical Examination of the Blood. By W. D'ESTE EMERY, M.D., B.Sc., Lond. 12mo. pp. 215. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, \$2.50 net.

As the author of this little book justly remarks, every practitioner should be able to make his own bacteriological diagnosis in those cases in which special laboratory facilities are not demanded. In fact, this is the teaching of all modern medical schools, and the established physician can hardly afford to permit medical students to be more advanced in medicine than he is. In addition to this it is absolutely necessary for anyone who desires to make an accurate diagnosis to know bacteriology in so far as its principles are concerned. He must not only be able to demonstrate bacteria, but it is equally essential that he give a proper interpretation of that which he sees before him. In other words, he must be equally adept in showing and in interpreting, and only by this ability will he be able to establish any sort of a reputation as a reliable diagnostician. He must be able to do all this unassisted, in cases which are susceptible of uncomplicated bacterial examinations. In those cases in which such unassisted examination is beyond the powers of the physician the aid of expert bacteriologists must be sought; and, even then, the interpretation of the picture which is presented lies as much in the province of the former as in that of the latter.

These are some of the reasons why the book before us is of so much value to the general practitioner. With a very simple and cheap apparatus he will be enabled to make satisfactory bacterial examinations if he but implicitly follows the directions laid down for such. These directions, whilst succinct, are clear and fully sufficient to permit a first-class examination to be made, and those guided by them will be pleasantly surprised at the good, as well as the satisfactory results which are obtained. This alone should prove a sufficient recommendation for this handbook. However, there are many other good points to be found in it. Thus, there are given a number of technical data which facilitate microscopic examination, such as the collection and examination of certain morbid materials. The chemical examination of blood is given in rather condensed style, but in such manner as to prove of great value. In addition to this, we are treated, quite at some length, to an account of the

technique of embedding, section cutting, etc., all subjects of more than ordinary value to him who is desirous of making serious microscopic investigations of the different tissues. We are much pleased with this part.

This little handbook is certainly one to be recommended to practitioners, and as a laboratory manual it will prove of the greatest assistance to medical students. In fact, taken as a whole, it is a most useful book. Whilst not as large as a treatise it contains sufficient of that which is useful to make it a favorite with those who have any occasion to use it. It is quite practical and this quality is enhanced by the numerous illustrations which abound in it, and the colored plates, which are but too few in number. We have been very favorably impressed by the book and we anticipate a large sale for it.

Syphilis. A Symposium. Special Contributions by L. Duncan Bulkley, A.M., M.D., Follen Cabot, Jr., M.D., Louis A. Duhring, M.D., Prof. Fournier, M.D., Eugene Fuller, M.D., E. B. Gleason, M.D., William S. Gottheil, M.D., Robert H. Greene, A.M., M.D., Norman B. Gwyn, M.D., Orville Horwitz, M.D., Edward L. Keyes, M.D., G. Frank Lydston, M.D., D. J. McCarthy, M.D., Thomas G. Morton, M.D., Boardman Reed, M.D., A. Robin, M.D., J. D. Thomas, M.D. 12mo., pp. 122. [New York: E. B. Treat & Co. 1902. Price, \$1.00.

The seventeen short contributions on various questions connected with syphilis contained in this little book originally appeared in a special number of the *International Medical Magazine*, and we are much pleased to see them issued in the present permanent form. They are all written by men of some prominence, a number of them having international reputations. The booklet before us does not aspire to the dignity of a treatise, but rather consists of the assemblage of a number of jottings which will prove of value and assistance to those physicians who lack the skill and experience which are necessarily those of the contributors. Even one who has more than ordinary skill and who has a large experience will find it very interesting to read these notes; and whilst he may differ in opinion from many of the views here expressed, the interest will not be in any way diminished, or the value of the little book less, as viewed from the view point of the general practitioner.

We would have liked to have seen the views of R.W. Taylor, Jullien, Neumann and some others of the best known European authorities, including Mauriac, Neumann and some others who are better known in syphilography than many of the names which are made to figure on the title page of this little book. There is a number of American names of world-wide reputation omitted; but when a second edition is called for we have no doubt that they will gladly contribute their opinions on a

subject of universal interest to the medical profession. As we stated at the outset, this little book is one of more than ordinary value to the general practitioner, who will find therein the solution of many problems which have proven of a puzzling nature and light thrown upon many points in etiology, pathology, diagnosis and treatment.

The book is published in a very neat and attractive form and reflects great credit upon the publishers, and we hope soon to have the opportunity of seeing symposiums on other subjects emanate from their press, as after all such publications possess an intrinsic value of their own which is not met by text-books as ordinarily written. The opinions of many are always of more value than those of one individual, no matter how learned he may be, and it is the difference in opinion based upon experience which tends to make the sum of human knowledge.

A Manual of Practical Anatomy. By the late PROFESSOR ALFRED W. HUGHES, M.B., M.C., Edin., F.R.C.S., Edin., F.R.C.S., Eng. Edited and Completed by ARTHUR KEITH, M.D., Aberd., F.R.C.S., Edin. In Three Parts. Part II.: The Abdomen and Thorax. 8vo., pp. 308. Illustrated with 4 Colored Plates and 151 Figures in the Text. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, \$3.00 net.

In this volume the editor gives evidence of having done much work. We find that, whilst a number of illustrations have been borrowed from other authors and their selection made with good judgment, he has contributed quite a considerable number of original figures. Throughout it will be found that the book gives the impress upon the reader of being original in the treatment of the subject, the text being invested with an amount of interest not usually found in text-books on anatomy. In other words, this is a text-book on the subject which interests the reader, and is not merely one which will be used but rarely for a quick reference. It is rather one which will lead its reader to pursue the subject for its inherent interest, and the proverbial dry-as-dust volume is lost sight of in the new vistas which are opened up to the one who will take the time and pains to read it carefully. We have been more than favorably impressed with the two parts which have appeared so far.

In the volume before us the abdomen and the thorax are taken up by the authors. The abdomen is considered on the regional plan, and occupies a little less than one-half of the book. In this there is shown a thoroughness in considering the subject which is more than ordinary. The Retro-Peritoneal Structures of the Abdomen and the Urogenital Region of the Perineum are lucidly set forth. The Thorax is well handled, and its anatomy set forth in a manner which is really above criticism. The Mediastinum and its Contents is a portion

which should be read by every physician. There exists unfortunately too much ignorance to-day on the mediastina and their diseases. This supposedly complicated subject of the anatomy of the mediastina is so clearly and plainly set forth in this book that it leaves nothing to be desired.

The publishers have made a handsome book of this and they offer it in a good form and one that should please every one. We regard this work as holding a high place among our best volumes, and it reflects credit both upon the author and his friend who edited and completed it.

Ophthalmic Myology. A Systematic Treatise on the Ocular Muscles. By G. C. SAVAGE, M.D. 12mo., pp. 589. Sixty-one Illustrative Cuts and Six Plates. [Nashville, Tenn.: Published by the Author. 1902. Price, \$4.00 net.

The book before us is an example of specializing in a specialty, and on a par with ophthalmological works on refraction, retinoscopy and other special departments in ophthalmology. We are pleased to note this division of the subject, as it is an evidence of the study devoted to it, and of real advance made in connection with it. We are awaiting as healthy indications in other departments of medicine, and we have no doubt whatever that they will show themselves in due and proper time. Of course, the general practitioner, that genial beast of burden, cannot be called upon to consult all these works, but a great many, like the present one, will be found to be replete with a number of useful hints of the greatest practical value.

In this treatise the author's initial chapter is concerned with basal principles, which once learned make the remainder easy of intelligent comprehension. The great fault of most practitioners is that they will not study what they have never learned and the least bit of optics frightens them, when, in reality, it is a most interesting study and one of the greatest interest, whose study is fraught with pleasure. Our author does not indulge in mathematical formulæ, nor does he burden his reader's mind with a mass of hieroglyphic formulæ which are simply all Greek to him.

We are pleased with the book and have read it with interest and profit to ourselves, albeit, we do not practice ophthalmology. He who reads this book will certainly learn more about the muscles of the eye, their functions and the ocular troubles which may be induced by their imperfect action, than he ever dreamed of in his student years or subsequently. The book is a good one and deserving of success. It is printed in large type, and the only thing we regret is that more elaborate plates and illustrations have not been introduced.

Nursing: General, Medical, and Surgical, with Appendix on Sick-Room Cookery. By WILFRED J. HADLEY, M.D., F.R.

C.P., F.R.C.S., etc. 12mo., pp. 326. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, \$1.50 net.

This is a very compendious little manual, which has been carefully constructed by its author. In this we have not only the general and particular directions for nurses which will enable them to care for patients properly, but enough technique of particular manipulations is given to render them of assistance to the physician or surgeon. So much is given that a busy physician is not unnecessarily detained in his work by being obliged to give minute directions and explanations, as the present book supplies these and can be easily understood by any intelligent person. Such a book is necessarily of great value to physician or surgeon, but more so to a nurse, as it will enable her to successfully ply her vocation, either in hospital or in private practice. In fact it is a complete vade mecum, more especially as it contains an appendix on sick-room cookery, a by no means unimportant adjunct in obtaining the complete cure of a case.

A particularly commendable part of this manual is that which is devoted to surgical cases in special operation cases. It is rather discouraging that all medical and surgical cases cannot be taken up in this manner, as a treatise written in this manner would beyond all doubt prove a veritable boon to all those desirous of becoming trained nurses in every sense of the word. For the present we must remain contented with manuals, and any constructed on the plan of the one before us and well studied will prove satisfactory, when supplemented by a few specific directions from the medical man in charge of a case. We are favorably impressed by this little book, and would unhesitatingly recommend it to both medical practitioners, surgeons and nurses. They will all find much of value and of practical application in it. We are pleased that it has been introduced in this country.

Diseases of Women. A Manual of Gynecology, Designed Especially for the Use of Students and General Practitioners. By F. H. DAVENPORT, A.B., M.D. Fourth Edition. Revised and Enlarged. 12mo, pp. 405. With 154 Illustrations. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, \$1.75 net.

The favor with which this manual has been looked upon is attested to by the number of editions through which it has already gone. We can readily understand this popularity when we take into consideration the practicality of this condensed little work. The author has grasped the idea perfectly. He understood the needs of both student and practitioner, and he started out to supply them. This he did most admirably in the manual before us, and to make its value still greater he

gives only those methods which he has found good in his experience. This very fact is that which makes it so excellent. He does not depend upon the dicta of others, but upon his own knowledge and upon that which he has found good.

Another thing which makes his book sought after is the care the author has taken to describe minutely those points which are omitted in the larger text-books and treatises, and which nevertheless have much value to him who is deficient in experience. This it is which makes this manual of more than ordinary value and tends to make it sought after by those who are not sure of their ground. The book throughout is well illustrated, and altogether it is a reliable, quick reference book for the more ordinary subject connected with diseases of women. It cannot make a gynecologist, but it can point the proper way to become one, and that is certainly as good a reputation as any manual can achieve.

The book is put up in the usual handsome style of the Lea's, and we anticipate the appearance of a fifth edition in the near future. It is a good book and will prove itself of practical value to all students and practitioners who are not especially devoted to gynecology.

BLAKISTON'S ? QUIZ COMPENDS? No. 15.

Compend of General Pathology. By ALFRED EDWARD THAYER, M.D. 12mo, pp. 322. Containing 78 Illustrations, several of which are in Colors. [Philadelphia.: P. Blakiston's Son & Co. 1902. Price, 80 cents.

The present is the best issue of Blakinston's Quiz Compends which we have received up to date. The book is gotten up in an interesting manner and the illustrations which are given are both good and apt. We have been very agreeably surprised to see this one, and we are certain that it will jump into immediate and undoubted popularity with all medical students directly they see it. There is hardly any one who could object to this one as it gives the essential points connected with general pathology in a manner which evidences careful preparation and a real desire to furnish a good and reliable guide. We have no doubt whatever that many practitioners will obtain a copy of this booklet to brush up on modern pathology and this will be productive of a demand for more complete treatises on the subject.

The author has done his work well and we are naturally anxious to see his Compend on Special Pathology. He has certainly struck the keynote in the writing of such books and he has the art of compressing much knowledge in a very small space. The further selection of good illustrations, as shown in this book, tend to enhance the value of such a manual to a great extent and make it desirable. As a refresher of the memory, it

certainly will prove an undoubted success and as a good guide to further reading it has its value. When we add to this the remarkably low price at which it is published, it certainly cannot fail of being a great success. The publishers have certainly outdone themselves with this little book, which we are certain will win universal commendation on all sides.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

BLAKISTON'S ? QUIZ COMPENDS?

Compend of General Pathology. By Alfred Edward Thayer, M.D. 12mo, pp. 322. Containing 78 Illustrations, several of which are in Colors. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, 80 cents.

Nursing. General, Medical, and Surgical, with Appendix on Sick-Room Cookery. By Wilfred J. Hadley, M.D., F.R.C.P., F.R.C.S., etc., etc. 12mo, pp. 326. [Philadelphia: P. Blakiston's Son & Co. 1902.

Handbook of Bacteriological Diagnosis. For Practitioners. Including Instructions for the Chemical Examination of the Blood. By W. D'Este Emery, M.D., B.Sc. Lond. 12mo, pp. 215. [Philadelphia: P. Blakiston's Son & Co. 1902.

Syphilis. A Symposium. Special Contributions by L. Duncan Bulkley, A.M., M.D., Follen Cabot, Jr., M.D., Louis A. Duhring, M.D., Prof. Fournier, M.D., Eugene Fuller, M.D., E. B. Gleason, M.D., William S. Gottheil, M.D., Robert H. Greene, A.M., M.D., Norman B. Gwyn, M.D., Orville Horwitz, M.D., Edward L. Keys, M.D., G. Frank Lydston, M.D., D. J. McCarthy, M.D., Thomas G. Morton, M.D., Boardman Reed, M.D., A. Robin, M.D., J. D. Thomas, M.D. 12mo, pp. 122. [New York: E. B. Treat & Co. 1902. Price, \$1.00.

Transactions of the American Orthopedic Association. Fifteenth Session, held at Niagara Falls, June 11, 12 and 13, 1901. Vol. XIV. 8vo, pp. 374. [Philadelphia: Published by the Association. 1901.

Ophthalmic Myology. A Systematic Treatise on Ocular Muscles. By G. C. Savage, M.D. 12mo, pp. 589. Sixty-one Illustrative Cuts and Six Plates. [Nashville, Tenn.: Published by the Author. 1902.

Diseases of Intestines. Their Special Pathology, Diagnosis, and Treatment. With Sections on Anatomy and Physiology, Microscopic and Chemie Examination of the Intestinal Con-

tents, Secretions, Feces and Urine, Intestinal Bacteria and Parasites; Surgery of the Intestines; Dietetics, Diseases of the Rectum, etc. By John C. Hemmeter, M.D., Philos.D. In two volumes. Vol. II.: Appendicitis, Tuberculosis, Syphilis, Actinomycosis of Intestine, the Occlusions, Contusions, Rupture, Entorrhagia, Intestinal Surgery, Atrophy, Abnormalities of Form and Position, Thrombosis, Embolism, Amyloidosis, Neuroses of the Intestines, Intestinal Parasites, Diseases of Rectum. 8vo, pp. 679. With Plates and many other Original Illustrations. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, Vol. II., \$5.00 net. Set complete, \$10.00.

A Manual of Practical Anatomy. By the late Professor Alfred W. Hughes, M.B., M.C., Edin., F.R.C.S., Edin., F.R.C.S., Eng. Edited and Completed by Arthur Keith, M.D., Aberd., F.R.C.S., Edin. In Three Parts. Part II.: The Abdomen and Thorax. 8vo, pp. 308. Illustrated with 4 Colored Plates and 151 Figures in the Text. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, \$3.00 net.

Diseases of Women. A Manual of Gynecology, Designed Especially for the Use of Students and General Practitioners. By F. H. Davenport, A.B., M.D. Fourth Edition. Revised and Enlarged. 12mo, pp. 405. With 154 Illustrations. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, \$1.75 net.

A New Book on Smallpox.—A very timely Treatise on Smallpox, to sell at \$3.00, is announced for publication early in April by J. B. Lippincott Company. It is written by Dr. George Henry Fox, Professor of Dermatology in the College of Physicians and Surgeons, New York City, with the collaboration of Drs. S. Dana Hubbard, Sigmund Pollitzer and John H. Huddleston, all of whom are officials of the Health Department of New York City, and have had unusual opportunities for the study and treatment of this disease during the present epidemic.

The work is to be in atlas form, similar to Fox's Photographic Atlas of Skin Diseases, published by the same house. A strong feature of the work will be its illustrations, reproduced from recent photographs, the major portion of which will be so colored as to give a very faithful representation of typical cases of variola in the successive stages of the disease, also unusual phases of variola, vaccinia, varicella, and diseases with which smallpox is liable to be confounded. These illustrations number thirty-seven, and will be grouped into ten colored plates, $9\frac{1}{2} \times 10\frac{1}{4}$ inches, and six black and white photographic plates.

The names of Dr. Fox and his associates assure the excellence of the work, in which will be described the symptoms, course of the disease, characteristic points of diagnosis, and most approved methods of treatment.

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ORIGINAL COMMUNICATIONS.

THE TREATMENT OF GASTRIC ULCER AND CHRONIC GASTRITIS.

BY ROBERT C. KENNER, A.M., M.D., LOUISVILLE, KY.

Ex-President Louisville Clinical Association; Editor Third American Edition of
Garrod's *Materia Medica and Therapeutics*; Honorary Member
Muhlenburg Medical Society, Etc.

Unquestionably the most common affections of the stomach encountered by practitioners of medicine are ulcer and chronic inflammation of the stomach. These affections are very distressing and lead to results which are most harassing in many respects. Ulcer may end in death, while chronic gastritis with the dyspepsia it carries in its train makes life, in most cases, a veritable burden.

The general practitioner does not, I believe, in all of these cases take the care in managing these diseases which he applies to the other morbid conditions. I hold that systematic attention to the treatment of these affections will reward us by enabling us to bring about cures where the patient would go along without substantial relief.

Most cases of gastric ulcer are seen in women, and is often associated with anemia, while over-work, indiscretions in diet, are predisposing causes.

In the treatment of gastric ulcer the patient must have adequate rest, and while the acute symptoms are present he must be fed by the rectum. However, after the acute inflammatory symptoms have disappeared, predigested milk and bland foods

can be given. But restricted diet must be persisted in until a cure has been effected.

The remedy which in my hands has been found valuable is glycozone.

This agent establishes resolution in the ulcer, bringing about healing, and the patient speedily gets well. I have given the remedy a thorough trial in gastric ulcer, and it has never been found disappointing.

In gastric ulcer (acute or chronic) the patient should drink before meals a tumblerful of ozonized water (made of one ounce of hydrozone and two quarts of water), and after meals he should take at least two teaspoonfuls of glycozone in a wine glass of water. This is the plan of treatment, and it should be persisted in for such a length of time as is necessary to heal the gastric ulcer.

Chronic gastritis, chronic gastritis catarrh, is very frequently encountered.

It often results from ordinary causes, which produce dyspepsia. It is the factor underlying many of the most persistent cases of dyspepsia which the practitioner is called upon to treat. A study of a great many cases of dyspepsia has convinced me that in most instances the cases of dyspepsia which persist are due to chronic gastritis. I have acted on this hypothesis in the treatment of these cases, and my results have been all that I could desire.

In these cases the treatment to be successful must be conducted precisely as we do gastric ulcer.

But in this connection I must say that we can make no substantial progress unless we regulate our patient's diet. Foods which are easy of digestion are to be used by the patient, and he must be told in the frankest manner that he must follow directions closely if he would desire perfect result.

The patient must drink the ozonized water (already spoken of) before meals and take two teaspoonfuls of glycozone just after meals in a wineglass of water.

This treatment has been so useful in chronic gastritis and has brought about a cure in so many cases of dyspepsia that I am enthusiastic in my opinion of it.

**THE EFFECT OF NITROGLYCERIN IN VASCULAR DISTURBANCES OF SOME FUNCTIONS OF THE BRAIN,
WITH REPORTS OF TWO CASES.***

BY ALFRED GORDON, M.D., OF PHILADELPHIA, PA.

The very well-known physiological truth, namely, that the nutrition of a tissue is greatly influenced by the state of distention of its blood-vessels, applies also to the nutrition of the tissue of the brain. Although the question concerning the exact mechanism of regulation of the cerebral blood-supply is not yet settled, in spite of the accumulated clinical as well as experimental facts, it is nevertheless accepted that the following factors play an important rôle, viz., the general venous pressure, general arterial pressure, and the state of pressure of the cerebro-spinal fluid. When, however, ordinary physiological conditions are exceeded, the influence of the sympathetic system upon vasodilatation and vasoconstriction must be added to the factors just mentioned.

The experimental studies of Bayliss and Hill point to venous pressure as the most important element in the regulation of intracranial pressure, and the opinion of the majority is that the normal pressure of the cerebro-spinal fluid varies also with the changes in the general venous pressure, to which it endeavors to conform. Venous congestion is always accompanied by a corresponding arterial anemia, but which of these phenomena is the subordinate one, we know not. With regard to sleep, for example, all the experimental evidences are in favor of the fact that it is accompanied by an intracranial arterial anemia, with arterial tension and venous congestion. Similar observations were made in mental depression. On the other hand, psychical activity is accompanied by an arterial hyperemia. The therapeutic application of this principle is of the highest importance, and the following two cases prove it conclusively:

CASE I.—O'N., aged fifty-seven years, a prominent manufacturer of this city, was last year under my care for a typical meralgia paresthetica, from which he had been suffering for the last three years. For a number of years he indulged in alcoholic beverages to a great extent; every now and then he would become intoxicated. He nevertheless led a very active

*Read before the Philadelphia County Medical Society, Nov. 27, 1901.

life, and worked very hard, mentally and physically. At examination we found him to be of a very mild and gentle disposition, like we often see in chronic alcoholic patients; face flushed, and nose enlarged, red, with the characteristic acne rosacea. The eyes were watery and the conjunctivæ hyperemic and yellowish. The peripheral arteries were found with high tension, but very slight hardening of their walls as far as the touch could elicit. The pulse wave was slow in its ascent. The venous circulation seemed to suffer; generalized varicose veins on the lower as well as on the upper extremities and face. The patient tells me that at times the veins become still larger, as is almost inevitable after a great mental strain. The heart revealed a very weak first sound at the apex, but no murmur, and an accentuated second sound in the right second intercostal space near the sternum. The urinary analysis showed a specific gravity of 1035, but no albumin and no sugar. The microscope discovered a few epithelial cells. The other viscera were normal. The patient's mental condition presented nothing unusual, except a marked impairment of the memory, which I had the opportunity to verify on several occasions. The affected memory became particularly noticeable toward the end of his treatment for the meralgia paresthetica, *i. e.*, about four months later. The treatment consisted of galvanism and the administration of potassium iodide in addition to general hygienic and dietetic rules, which he followed as strictly as his occupation permitted. Although alcohol was absolutely forbidden, he nevertheless indulged in it, but on rare occasions. The pain was considerably allayed, and his general health improved to a great extent. Then I noticed that his memory became weaker, and a slight dyspnea developed on going up stairs. At about the same time he complained, also, of attacks of narcolepsy. While at his work, all of a sudden he would feel a great desire for sleep. This would happen several times during the day, but only for about fifteen minutes each time.

A repeated examination of the heart and the peripheral circulation revealed nothing new; the same condition as when he came to see me first. One morning I was called, in haste, to see him, and these are the circumstances related to me by his family: About two o'clock in the morning they heard him

making a noise. They found him in another room dressing himself. Asked why he was dressing, he answered in such an unintelligible manner that he could not be understood. He kept on dressing, but soon undressed himself, again put on his clothes, and so on. He wandered around the room, picking up articles that could be of no use to him, took out his full dress suit with intention to put it on. This frightened the family. They immediately put him to bed, and at 6 A. M. sent for me. From 2 to 6 he could not speak distinctly, and presented a vague expression. Upon my arrival I found the patient's face cyanotic. The superficial veins were engorged not only on the face, but also on the extremities, the respiration was difficult, a few râles in the lungs, pulse was small, but of very high tension, heart-beats perceptible to the ear, but the second aortic sound, familiar to me by its slight habitual accentuation, now very much accentuated. But the most striking symptom was the mental condition. Almost total aphasia and inability to recognize me, with a vague unintelligible look, associated with a paretic condition of the right arm, were the cerebral symptoms presented by our patient. The lower extremities, as well as the upper left limb, were found normal. The patient urinated as usual, but had not had a stool during the preceding twenty-four hours. No convulsions were present during my visit or at any time during the night. The cyanotic appearance, the dilatation of the superficial veins, the smallness of the radial pulse, with its high tension, and the condition of the heart suggested a venous congestion, a disturbance of the intracranial pressure and of the circulation of the brain, especially in the area of its speech-center. A depletion of the venous circulation was therefore indicated in order to facilitate the arterial circulation. I immediately gave the patient a hypodermic injection of $\frac{1}{100}$ grain of nitroglycerin, ordered a high saline enema, and prescribed $\frac{1}{100}$ grain of nitroglycerin to be given twice during the day. I also insisted upon exclusive milk diet, that the patient be kept in bed and carefully watched, as he was extremely restless. Until 4 P. M. patient took three doses of nitroglycerin. I then saw him and found a radical change. He recognized me at once, shook hands with me, and could speak, though not very well. The cyanosis was very much diminished. The intelligence was still somewhat

obscured. The radial arteries were full and dilated, the heartbeats were more perceptible and the accentuation of the second aortic sound was less marked. Nitroglycerin was discontinued, and the nurse was instructed to watch the patient closely, and in case of a recurrence of the same symptoms to immediately administer nitroglycerin, $\frac{1}{100}$ grain, every four hours. The next morning I was told that exactly the same symptoms reappeared during the night: cyanosis, total aphasia, marked impairment of intelligence, but no convulsions; the patient urinated sufficiently (three times during the night). Nitroglycerin was given at once, and repeated three hours later. To me the patient appeared comfortable and exactly in the same condition as I left him at 4 P. M. on the previous day. This was undoubtedly due to the nitroglycerin administered during the night. In view of the fact that a recurrence of the symptoms took place when the drug was withdrawn, we kept up its administration during three successive days in spite of the fact that the patient was improving. At no time was there any ill effect from the drug. On the fourth day we discontinued the treatment, but kept him in bed on exclusive milk diet, watched the quantity of urine voided, and kept the bowels open. Urinary examination showed a specific gravity of 1020, no albumin, no sugar. Microscopical examination of the sediment obtained with centrifuge was negative. For four consecutive days the patient continued to improve, when again a new attack of aphasia occurred. Nitroglycerin was resumed and the aphasia disappeared. Such was the condition of the patient for four weeks, during which time he would have attacks of aphasia, with impairment of intelligence whenever he abandoned the treatment for five or six days. He was allowed to walk around, but was absolutely forbidden to do any work. He carried in his pockets tablets of nitroglycerin ($\frac{1}{100}$ grain), and at the slightest change in his condition he would take them two or three times during the day for three days, and his condition would improve. Two months later he returned to his work, but watched himself pretty closely, and as soon as some headache would come on he immediately began to take a few doses of the drug. This would relieve him even from the headache. The attacks of narcolepsy gradually decreased in frequency and duration. He is again in active

business, and is at his office every day without exception, but always provided with the tablets. Such was the remarkable effect of nitroglycerin upon the bloodvessels of the brain, as it was certainly a condition of vascular disturbance of the cerebral functions.

CASE II.—M. P., aged eighty years, came to see me at the beginning of October, 1901, on account of fainting spells occurring two or three times a day for the last year. He said that they only come on when he is on his feet, but he was free from them when lying down. Each attack is followed by a complete loss of consciousness lasting ten or fifteen minutes, but there were no convulsions and no frothing at the mouth. The attacks never occurred at night. Each attack was always preceded by a sensation of dizziness. For the last several weeks he has had constantly some dizziness, which compels him to have a companion whenever he has to attend to business. Alcoholism was denied by him. At examination, we stated that the patient was cyanotic, the superficial veins of the face were very much distended, breathing was very difficult and harsh. The lungs were distinctly emphysematous; the thorax was increased in the antero-posterior diameter. The inspiratory movements of the chest were short, the expiratory prolonged. Percussion gave increased resonance. On auscultation prolonged expiration, with sibilant râles were heard. Heart: The first sound could not be heard at the apex. The second sound was exaggerated, there was no murmur. The aortic sounds could not be heard at all, on account of the noise in the lungs during breathing. The peripheral arteries presented very marked arterio-sclerosis. The pulse was small, but of great tension. The lower extremities presented a normal appearance, there was no edema. The urinary examination is negative and the daily quantity is normal (about $2\frac{1}{2}$ pints), the specific gravity 1025.

In making the diagnosis, we at once eliminated epilepsy, as the attacks of unconsciousness were not of epileptiform character, and uremia, because the urinary examination was negative. We thought then of a venous congestion with contracted arteries of the brain and increase of intracranial pressure. At once we administered nitroglycerin in $\frac{1}{100}$ grain doses, in addition to general dietetic rules appropriate in such a case. The

patient reported on the third day remarkably improved. There was no cyanosis, he looked bright, and the difficulty in breathing was considerably lessened. There was no tension of the peripheral arteries, the pulse was full and regular, and the pulmonary râles were considerably diminished. The patient was advised to live on an exclusive milk diet for a few days longer, to move his bowels daily and take potassium iodide in 5-grain doses three times a day in addition to the nitroglycerin. The patient kept on improving. The attacks of unconsciousness disappeared totally, but the sensation of dizziness remained, although considerably diminished. Feeling himself very much improved the patient left me against my advice for about two weeks, but returned for the following reason: The attacks of unconsciousness returned in the same manner as previously to my treatment. I learned that he gave up the nitroglycerin, but continued the potassium iodide. We resumed the treatment; the attacks gradually disappeared, and presently he suffered only from a slight dizziness on exertion. The milk diet is kept up, but not exclusively. The patient takes potassium iodide regularly, but the nitroglycerin he uses only when the dizziness increases. He feels comfortable, but we certainly do not expect to accomplish a permanent cure, on account of the condition of his lungs and the arterio-sclerosis. The fact nevertheless remains that nitroglycerin is the remedy from which he can expect some relief and which makes his life endurable.

Although both cases are apparently different in their clinical manifestations, they nevertheless are analogous in their main features. In either case, the brain tissue suffered from evident vascular disturbances. Here and there we witness a sudden functional trouble of the nervous centres, which was manifested in a suspension of their physiological activity. It is a sort of a shock to the nervous tissue, which is characterized by a sudden functional exhaustion, without a permanent material lesion. This is the so-called "nervous apoplexy" of the old writers. Whether it was due to venous congestion or to cerebral anemia, the result was a transient inhibition of the sensory and motor centres. Experimental researches corroborate the truth of these clinical observations. The famous experiments of Brown-Séquard and Vulpian, which consisted of ligating the carotid and vertebral arteries or of compressing the carotids gave a

similar picture, namely, a sudden inhibition of the cerebral centres caused by a vascular disturbance and change in the intracranial pressure.

There are certain other factors which may act upon the nervous cells in a similar manner; as, for example, various poisons introduced into the system from outside or elaborated within the system, but the vascular influence is the most potent factor. If the mechanism of the regulation of the cerebral blood-supply depends so much upon the vascular disturbances, we certainly find in nitroglycerin a powerful drug for controlling a functional inhibition of the higher centres depending upon the circulation. It is an agent which should be principally used when a rapid effect upon the vascular apparatus is expected. By promptly dilating the arterioles, the arterial tension becomes lowered, the rapidity of the pulse is increased, the blood-pressure is considerably reduced, and the results thus obtained are quicker than all other forms of nitrites.

The Committee on Pathologic Exhibit for the American Medical Association is anxious to secure materials for the coming session at Saratoga, June 10th to 13th inclusive.

This exhibit was accorded much praise and comment during the sessions at Atlantic City and St. Paul respectively, where were collected valuable exhibits from all parts of the country. The materials included not only pathologic specimens but the allied fields, bacteriology, hematology, physiology and biology, were well represented. It would also be desirable to secure exhibits of new apparatus, charts, etc., used by teachers of pathology and physiology in medical colleges.

This exhibit has already become a permanent feature of the annual sessions of the American Medical Association and the committee is desirous of securing its list of exhibits as early as possible, and to this end asks those having desirable materials to communicate with any member of the committee.

To contribute to the value of the work, it is suggested that as far as possible each contributor select materials illustrative of one classification, and by such specialization enhance the usefulness of the display.

Those lending materials may rest assured that good care will be given their exhibits while in the hands of the committee, and due credit will be given in the published reports.

F. M. Jeffries, 214 E. 34th St., N. Y. City; W. A. Evans, 103 State St., Suite 1403, Chicago, Ill.; Roger G. Perkins, West. Res. Med. School, Cleveland, O., Committee on Pathologic Exhibit, American Medical Association.

QUININE RASH, WITH REPORT OF A CASE.*

BY HORATIO C. WOOD, JR., M.D., PHILADELPHIA, PA.

Cases of eruption brought about by quinine, while not by any means rarities, are still uncommon enough to warrant the report of the following case, which occurred in the service of Professor Riesman at the Polyclinic College for Post-graduates:

Miss A. C., aged thirty-five years, by occupation a laundress in the hospital, was brought to the clinic with the following history: She had taken as a tonic, two days previously, in doses of two teaspoonfuls, three times a day, a prescription containing 1 ounce of the tincture of nux vomica and enough of the compound tincture of cinchona to make 8 ounces. Within a short time after taking the first dose she experienced stinging sensations along the forearm. A short time after this these areas became red. When seen, the eruption presented the following appearance: A number of spots equally distributed over the extensor and flexor surfaces of the forearm, regular in outline, almost perfectly circular, from 2 to 5 centimetres in diameter, deep red in the centre, shading slightly towards the periphery and surrounded by a slight macular rash. The temperature of the skin in the immediate neighborhood was distinctly elevated to the touch. There was at first, according to the patient's description, some induration around the spots, but this when she was seen had mostly disappeared. Some of the spots had already faded and were copper-colored in contrast to the bright red of those in active inflammation. There was slight itching. The temperature was 99.5°; the pulse 88; there were no marked constitutional disturbances, and no involvement of the mucous membranes. A placebo was ordered, and four days later the patient was seen again. The spots had faded to a marked degree, some of them actively desquamating. There had been, since her visit, some pain on using the left arm. Unfortunately, the patient did not return again to the clinic, and we are unable to give the exact time for recovery, but at the last visit she was well on the road toward it. Patient said she had had a vesicular eruption five years before following the use of quinine for malaria.

The compound tincture of cinchona, of which the patient

*Read before the Philadelphia County Medical Society, Nov. 13, 1901.

took 105 minims, contains according to the U. S. Pharmacopœia, not less than 0.25 per cent., more than 0.5 per cent. of total alkaloids, making the dose which the patient took equivalent to not over half a grain of quinine.

Bergeron and Proust have made a careful study of the quinine eruption occurring in those engaged in the manufacture of the alkaloid. The eruption which occurs among the workmen is not due to a local irritation, but to the absorption of the drug, since it occurs on all parts of the body. In some cases from merely going into the room where the drug is manufactured sufficient seems to be absorbed through the lungs to cause an eruption. Bergeron and Proust class the eruption not among professional diseases, but as an idiosyncrasy, since it occurs in a comparatively small proportion of the workmen. It takes the character, under these circumstances, rather of eczema than of an erythema, which follows ordinarily the internal administration of the drug. Permanent immunity towards quinine is very rarely acquired among workmen who have once had an attack of the eruption. They quote, for example, the case of a workman who, after an eruption lasting several days, still worked in the quinine, and finally became insusceptible to the drug. He then changed his occupation, and returning a few days later to the quinine factory had an extremely active eruption, attended with desquamation on the face, the hands, the thighs, and scrotum. It seems among these workmen to be still more generally the rule that one who has once had a quinine rash must change his occupation or be subject to more or less constant irritation of the skin. They quote, however, as an exception to this, one case which had acquired an immunity which had remained with the patient for ten years. "The acclimatization is very exceptional, and the susceptibility which predisposes certain individuals to the eruption becomes more intense when the individual has once undergone the first attack of the trouble."

Quinine rash is of interest to the general profession on three grounds: that of diagnosis, cause, and treatment.

Diagnosis. The eruption following quinine may take one of a number of forms, and occasionally is atypical of any regular skin disease. Very frequently, however, it may resemble eruptions occurring from some other cause so closely as to make a

diagnosis almost impossible save from the history of the case. Not only may it resemble the milder skin affections, but it has borne such resemblance to the more serious troubles, such as scarlet fever or syphilis, as to make the diagnosis very difficult.

The following case is reported by Levassor :

A man, aged thirty-eight years, took, because of an intercostal neuralgia, $\frac{1}{2}$ gramme of quinine sulphate at 8 P. M. An hour and a half later he had chills, headache, and tinnitus aurium. At 2 A. M., he experienced sensations of heat and itching on the internal surfaces of the thigh and on the face. Shortly afterward the face was injected and slightly swollen, and a uniform scarlet redness was present over the trunk and limbs. The mucous membrane of the mouth and pharynx was also red. Tonsils were not swollen or painful. Temperature was elevated. In two days the case began to desquamate, and at the end of a week had completely recovered. The diagnosis of scarlet fever was made. Four days later a recurrence of the intercostal neuralgia induced a second dose of quinine, which was followed by precisely the same symptoms as the first dose. The patient then said he had an idiosyncrasy toward the drug.

French reports another case in which the diagnosis of scarlet fever was made, which proved afterward by a second attack to be due to quinine. In this case the patient had taken five grains of quinine three times a day for one day. The eruption was a diffuse erythema, accompanied with miliary vesicles on the forearm. To further complicate the diagnosis the tongue presented the typical strawberry appearance indicative of scarlet fever, and the fauces were also injected.

Haralamb reports a case occurring in a syphilitic, in which the diagnosis between a specific eruption and a quinine rash was made only by a test.

A man, aged forty-seven years, a syphilitic, took 1 gramme of sulphate of quinine. The next day he had a bullous eruption on the lips, preceded by burning and itching. Later he took two doses, 1 gramme of quinine; some hours after the first dose he felt pricking and itching on the lips, hands and scrotum. Two days later there appeared on the lips confluent bullæ containing a limpid liquid; these bullæ burst and left in their place a bleeding surface soon covered with a blackish

crust. Eight months later he took 1 gramme of quinine one day, and another gramme the next day. Three days later bullæ appeared on the left lip; and on the left hand there came a spot, brownish-red in color, having the dimensions of a franc; violent itching was experienced on the back of the hand, and bullæ appeared on each foot and on the scrotum. These bullæ bursting, left eroded surfaces of a reddish color. On the patient's admission to the hospital there was present, on the edge of the lower lip, a thin crust, blackish in color, extending the whole length of the edge of the two commissures. The lip was edematous, and on palpation one felt the skin to be infiltrated. The rest of the lips were covered with whitish scales. On the right arm was a reddish plaque, the size of 50 centimes (a dime), infiltrated and covered with yellowish crust. On the posterior part of the thorax, near the base of the neck, was a large erythematous patch, infiltrated with red, the size of a 5-franc piece (dollar). Lesions of a similar nature were scattered all over the body and on the genitalia. In order to confirm the diagnosis, the patient was given one-half gramme of quinine, and the patches, which had begun to fade, immediately took on a bright color, and new ones appeared. The test was repeated the next day. The eruption lasted one week.

Quinine eruptions may be conveniently divided into the following groups: The scarlatiniform, the urticarial, the bullous, the purpuric, the rubeoloid, and the erythematous. Outside of these groups there have been reported isolated cases which cannot be placed in any of these classes. David and Revilloid, for example, report the following case:

A man was ordered 75 centigrammes of quinine morning and evening. On the third day of treatment he complained of itching in the palms of his hands and on the forearms, internal surface of the thighs, knees, and back of the foot. Examination showed a redness in spots, which disappeared on pressure. The next day the parts oozed abundantly. He was thought to have an eczema until the patient said he had had several similar attacks following quinine. The drug was then stopped. On the next day the skin became dry, and some days after complete desquamation took place.

Schamberg reports a case in which quinine always caused a balanourethritis, while in a case of Schenck the untoward effect

of quinine was apparently limited to the production of a coryza.

Concerning the comparative frequency of these eruptions, out of 60 cases which I have collected from literature 18 were classed as erythema,* 12 as scarlatinoid, 9 as urticarial, 5 as purpuric, 2 as bullous, and 2 as rubeoloid. There were 4 cases of mixed eruptions, 3 being urticarial and erythematous, and 1 bullous scarlatinoid. In five of the cases the description was insufficient to allow of a proper conclusion. Eczema was noted in 1 case.

There seemed to be no predisposition toward any special area of the body. In some cases the eruption was limited to the face or limbs, while in many cases it was equally distributed all over the body.

Two points of great interest from a diagnostic standpoint, especially in those cases resembling scarlet fever, are the question of the involvement of the mucous membranes and the occurrence of desquamation. Unfortunately, many of the authors quoted have not mentioned specifically whether or not these complications existed. Out of 60 cases, including my own, 14 were reported to have desquamated† and 3 not to have desquamated. In 11 cases the mucous membranes of the throat were reported to have been affected, and in 3 cases not to have been affected. Since either involvement of the mucous membranes or desquamation would seem to be sufficiently interesting symptoms to have been noted by the physician, it may be fairly taken for granted that in those cases where it was not mentioned they were not present. On this basis we may conclude that the mucous membranes were affected in about 18 per cent. of the cases, and that 23 per cent. desquamated. The eruption appeared, as a rule, within one day after taking the medicine. In one case—that of Dennig—it was noted within ten minutes of the ingestion of the drug; while in the case of Hunt it was said to have followed immediately.

	Cases.
Appeared in one hour or less.....	8
“ “ day “	21
“ over one day.....	9

*I have included under the head of erythema not only those so designated by the authors, but also those classed as roseola.

†Of these 14 cases of desquamation 7 were classed as scarlatinoid. Two of those reported as non-desquamating were among the scarlatinoid group.

The latest period at which the eruption was noted to appear after the single dose was two days, of which there are several instances. The reported durations are as follows:

	Cases.
Under 1 day	4
1 to 3 days	12
4 to 7 days	9
Over 1 week	10

The shortest duration reported is that of Bouvard, lasting 8 hours; the longest is 5 weeks, Johnston.

Cause.—In considering the predisposing causes of the rash, it is equally prevalent among persons of all ages from seven years to sixty-five. It is interesting to note in this connection the case of Dennig, in which the first rash reported to have followed quinine occurred at the age of seven years, when it was diagnosed as scarlet fever. Subsequent rashes occurred at intervals throughout the patient's life, into manhood. There seems also to be little difference in sex; in 25 cases the patients were females, in 3 cases male, and in 3 cases the sex was not mentioned.

The size of the dose seems to have little bearing upon the severity or the probability of the rash. In the case of Johnston the eruption, which was very severe, occurred after two doses of fifteen drops each of the tincture of cinchona, representing not over one-third of a grain of quinine.

A man, aged thirty-seven years, who had previously had experience with quinine rash, was ordered 15 drops of the tincture of cinchona as a tonic, of which he took two doses. In two days he began to complain of itching on the genitalia and on the face; this symptom, later, became intolerable. The whole body was covered with a scarlatinoid eruption, with vesicles on the face. These vesicles turned to bullæ, and later bullæ were present on the heel, the ball of the foot, the toes, and the palms of the hands. From some of the larger lesions as much as half a pint of serum was taken. Seven days after the ingestion of the drug the face was much improved, but the feet and hands were worse. "The whole horny covering of the palms depended in the shape of half-filled bags of fluid; the skin of the fingers being raised from the tip to the last articulation." On the soles of the feet the bullæ had coalesced and were even larger. Exudation began and continued for some

days; recovery was complete in five to six weeks, although much delayed by the exquisite tenderness of the denuded surfaces of the hands and feet. The mucous membranes were never affected. The treatment employed consisted of an astringent application of calomel, zinc and black wash. Later diachylon and zinc ointment were used.

Some of the cases, especially those of the earlier writers, have followed truly heroic doses; for example, in Daubeuf's cases he gave from 1 to 4 grammes (15 to 60 grains) of quinine sulphate. It is noteworthy that in those cases where the dose has been large the eruption seems to have been, as a rule, less severe than where the dose has been small.

The most potent predisposing cause is certainly an idiosyncrasy towards the drug, as suggested by the fact that a small dose calls forth such marked irritation. In twelve cases, the dose has not been over three grains. This idiosyncrasy, apparently in the majority of cases, the patients have had during their whole life, as in the case of Dennig. In some cases, however, the patient seems to have acquired the peculiarity towards the drug later in life. Hunt reports a case of a woman in which severe eruption followed 3 grains of quinine, the patient having previously taken very large doses without any difficulty. The idiosyncrasy once acquired seems to follow the patient a long period of time; for example, in the case of Morrow, a man had previously taken large doses of quinine without any bad effects, but 2 grains of quinine brought out a rash, which disappeared after a time. As long as two years later, during an attack of malaria, 1-grain doses of quinine caused a similar violent attack of urticaria. Out of 61 cases 16 appeared to have had attacks previously; 19 are reported to have had subsequent attacks, as tests from the drug or accidentally.

According to Morrow, if a patient has once experienced dermal trouble from the ingestion of quinine the idiosyncrasy will follow him through life. Although this appears to be true as a general thing, Thin reports a case, without much detail, where 2 grains caused an urticaria in a man who had previously, and who did subsequently, take the drug without bad effects.

When we come to the consideration of the exciting cause of this eruption, our lack of knowledge of the chemico-pathological changes prevents any definite conclusion. Two chief theor-

ies concerning the mechanism of this eruption have been brought forward. Levassor believes the eruption to be due to a vasomotor paresis produced by the quinine; this explanation, however, will hardly suffice in those cases where there has been an active inflammation, sometimes severe enough to have caused a marked elevation of the temperature. A much more likely explanation is that the quinine being eliminated through the skin acts as a direct irritant. Although Schottin failed to find quinine in the sweat after its ingestion, Landerer* and Guyochin have both determined its elimination through the skin. The latter observer asserts that it is excreted through the skin in the form of quinidine. Morrow† quotes several cases, one from his own practice, in which the topical application of quinine produced local eruptions, showing that the drug is capable in certain cases of acting as a direct local irritant to the skin. The observations of Bergeron and Proust at first sight might seem to confirm this conclusion, but as noted above these eruptions seem rather to be due to the absorption of the drug than to its local influence.

Treatment.—The rash following quinine belongs to that class of diseases where an ounce of prevention is worth a pound of cure. Unfortunately, however, it seems impossible to foresee in any case that a patient has an idiosyncrasy toward the drug unless there has been a previous unfortunate experience; and indeed even this test fails, because in many cases the patient had previously taken the drug without any disagreeable symptoms. In those cases in which it is known that the patient has an idiosyncrasy towards quinine, and it seems imperative to use this substance, the suggestion of Witherington may prove of value. In a case reported by this observer the administration of quinine called forth repeatedly an active eruption of the skin, until it was administered hypodermically, after which the patient took large doses without any trouble.

After the eruption has once manifested itself, purely symptomatic treatment seems to be required. Mildly astringent applications, such as dilute acetic acid, or zinc oxide, are indicated. The use of saline laxatives to open the bowels, and

*Quoted by Husemann, *Pflanzenstoffe*, 1882, p. 1442.

†Drug Eruptions, 1887, p. 105.

No.	Reporter.	Age	Sex	Dose.	When appear.	Character.	Itch- ing.	Consti- tution? Sym- ptoms?	Mucous mem- brane affected?	Desqua- mation.	Duration.	Remarks.
1	Duval	31	F.	5 gr. b. d.	3d day	Scarlatinal	Yes	Yes	...	Yes	12 days	Had frequently taken quinine without bad effects.
2	Veeder	...	...	"Small"	...	"	...	...	...	...	Disap' red when drg stopped	No details. Second attack later.
3	French	...	F.	5 gr. t. i. d.	1 day	"	...	Yes	Yes	...	...	Diagnosed as scarlet fever until recurrence (see text).
4	Levassor	38	M.	0.5 gm.	6 hours	"	Yes	"	"	Yes	1 week.	Diagnosed as scarlet fever until recurrence (see text).
5	Bazells	...	F.	1 gm.	1 day	"	...	...	No	No	6 days	Second attack from 0.5 gm. later.
6	Rivet	...	F.	0.6 " in 2 dys	2 hours	"	...	Yes	Yes	...	1 day	Similar attack later.
7	Garraway*	40	F.	1 gr.	2 hours	"	...	"	...	Yes	Few days	
8	Hemming*	old	F.	1 gm.	12 hours	"	Yes	"	...	...	3 weeks	Two previous attacks.
9	Dennig*	7	M.	.....	10 min	"	...	"	...	...	...	Had attacks later up into manhood (see text).
10	Prentiss	20	F.	32 gr. in 24 hrs.	1 day	"	...	"	...	Yes	7 days	Two similar attacks in next few days.
11	Smith	23	M.	4 gr. in 2 doses	Few hrs.	"	Yes	No	...	Yes	Few days	
12	Falligant	18	F.	5 gr. t. i. d.†	2 days	"	...	...	Yes	Yes	...	Given cinchonidia on account of idiosyncrasy
13	Johnston	37	M.	.....	2 days	Bullous and scarlatinal	Yes	...	No	"	5 weeks	30 drops tinct. cinchona. History of previous attacks (see text).
14	Leclerc*	33	M.	1 gm.	8 hours	Roseola	"	...	...	No	About 2 days	Repeated attacks during two months' treatment.
15	Daubeuf*	23	F.	1-4 gm. daily	8th day	"	...	...	...	...	1 day	Second dose similar eruption.
16	"	40	F.	2-4 gm. daily	...	"	...	...	...	...	7 days	Did not appear until suspension of drug.
17	"	26	F.	2 gm.	...	"	...	...	...	...	1 day	No details.
18	"	...	F.	3 gm.	8 hours	"	...	...	...	...	4 days	"
19	"	49	M.	.....	...	"	...	...	...	...	3 days	"
20	Grellety*	...	M.	0.5 gm.	1 day	"	...	Yes	...	...	...	Several similar attacks.
21	Levassor	65	M.	0.5 gm.	2 hours	"	...	...	No	...	1 day	Had had previous attacks.
22	"	52	M.	0.5 gm.	1 hour	Erythema	Yes	Yes	...	Yes	3 days	Second attack two weeks later.
23	Bazells	...	M.	0.2 gm.	1 day	"	...	...	...	...	...	No details.
24	Little	...	F.	"Large"	...	"	...	...	...	...	...	"
25	Revilleod and Odier*	...	F.	.....	2 days	"	...	...	...	...	...	"
26	Prevost*	21	M.	1.5 gm. daily	2d day	"	Yes	No	...	...	4 days	2 gm. cinchona powder; second attack four days later.
27	Bergeron*	...	F.	1 day	1 day	"	"	...	...	...	1 day	Had previously taken it without bad effect; similar attacks later.
28	Yeo	...	M.	6 gr. in 2 doses	Few hrs.	"	"	...	...	...	4 days	

nerve sedatives in those cases where there is accompanying excitement, should be employed according to indication.

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SOMNOLENCE CAUSED BY AN EAR LESION.*

BY W. G. B. HARLAND, M.D., OF PHILADELPHIA, PA.

W. A. R., thirteen years of age, came to the dispensaries of the Presbyterian Hospital, January 14, 1901, complaining of a tendency to sleep all the time.

The history given was that without feeling tired or out of sorts in any way he would go to sleep whenever his attention was not aroused by action. When sent to the store he would fall asleep while his order was being filled; he would fall asleep at the dinner-table; one day, indeed, he slept on the lounge from morning until evening, and all night besides. The condition did not simulate *petit mal* at all.

The disposition to sleep had existed a month when I first saw him. There were no other symptoms: no vertigo, no tinnitus, no nausea, no headache. Careful physical examination made by Dr. James Ely Talley, as well as by myself, showed an absence of defect of any kind except that I discovered a small impaction of cerumen in the left ear.

He was reasonably well nourished. The heart and lungs were normal. The eye-grounds, examined by a specialist, were found to be normal. The examination of the nervous system was negative in result; the station was good; the reflexes were normal, and the gait was natural. There was a slight trace of albumin in the urine; there were no casts, and there was no sugar. Upon syringing the ear on the following day the wax came out readily, and a few drops of very fetid pus were found behind it. The drum was macerated and had a large perforation in the lower posterior quadrant. Within a day, without other treatment, the unnatural sleepiness disappeared; there was then no visible discharge from the ear. Seen on January 26th, the boy was apparently well. Careful inquiry into the past history of the patient developed the fact that five months previously he had been affected somewhat in the same way with sleepiness, but to a much less extent, and had at that time an otorrhœa; it had lasted a short time. The boy says that his ear had occasionally discharged ever since he had the measles as a "small child."

April 4, 1901. Some cerumen was present with slight offen-

*Read before the Philadelphia County Medical Society, Dec. 11, 1901.

sive discharge ; the large perforation existed as before. His mother says that there is some return of sleepiness ; patient denies this statement. After cleaning, the symptom disappeared, and has not returned.

10th. Dr. Charles H. Burnett, aurist to the hospital, examined the boy, but could find nothing to explain the somnolence. He suggested that it might have been caused by caries in the attic, or possibly be due to some disease of the dura from carious bone. The case was seen by Dr. A. H. Cleveland also.

August 19th. Some foul smelling cerumen ; no visible pus. Since that date I have removed the flakes of cerumen and epithelia as they collected.

The case is an unusual one, and I have not been able to find any similar one on record. My first thought was that the condition had been brought about by pressure. It may have been due, however, to meningeal irritation caused by absorption of minute quantities of pus. A low grade of periostitis, if not of caries, undoubtedly exists in the attic or antrum. This gives rise to no symptoms except those of odor and slight discharge until the discharge is obstructed in its exit, when absorption is increased and a slight degree of meningeal irritation is produced. The blood supply of the middle ear is intimately associated with the middle meningeal artery. The superficial petrosal artery, a branch of the middle meningeal, enters the middle ear through the bone wall above, and supplies the malleus, stapes, etc. The stylomastoid enters below, also from the middle meningeal ; veins and lymphatics accompany the meningeal branches. This intimate relation makes the hypothesis of meningeal irritation a probable one. Usually meningeal irritation is accompanied by insomnia as a symptom. If, however, the irritation is very slight, it can be imagined that a slight contraction and ischemia might result and somnolence be produced. Knapp, in the *American Text-book of Diseases of the Eye, Ear, Nose, and Throat* (p. 757), speaking of epidural abscess, mentions somnolence as one of the indefinite symptoms of the disease. If somnolence can result from slight meningeal irritation, we have conditions present to produce it in this case.

Pressure on the labyrinth fluid via the round window or the oval window, or even through spots of bone made thin by

caries, might produce faintness or even sleepiness. Erhard, of Berlin, in a book translated some years ago by Dr. Burnett, refers to a case where the occlusion of the Eustachian tube by the sudden inhaling of acetic ether made a robust, healthy man fall senseless to the floor, absolutely deaf to the loudest noises and notes. He could be aroused only by shaking. Yet upon introducing air into the tympanum all these strange symptoms instantly disappeared. This case is apropos as evidencing the enormous effect of the unsettling of the pressure equilibrium in the ears of some people.

That my case did suffer from somnolence I have every reason to believe, and in view of his immediate recovery after the removal of the wax from the ear I am inclined to ascribe the symptom to either meningeal irritation from the absorption of pus, or possibly to pressure upon the labyrinth fluid.

Notes: Hearing in left ear $1/6$. Not good for low tones. High pressure through Seigle speculum does not produce any symptom.

Weber Test—Tuning-fork heard better in left ear.

Renné Test—Normal in right ear; reversed in left.

An Important Decision.—The following closes a suit regarded as most important, which it is. The imitators in common will find their death knell sounded in this. We are pleased to note that the poor imitation of Gude's Pepto-Mangan cannot be foisted upon the public.

(Copy.)

COMMONWEALTH OF MASSACHUSETTS.

Middlesex, ss:

Superior Court, in Equity.

THE M. J. BREITENBACH COMPANY, Complainant.

vs.

HENRY THAYER & COMPANY, Defendant.

DECREE.

The above entitled cause having come on to be heard, and a trial having been had, and the evidence offered by each party having been received and considered, and it appearing to the Court that the use of the wrapper and package employed by the defendant for its preparation of iron and manganese, as described in the Bill of Complaint, is calculated to deceive the public and enable the defendant's preparation to be passed off

as the preparation of the plaintiff known as Gude's Pepto-Mangan, now after hearing Messrs. Paul & Barnard and Philip Carpenter, of counsel for the complainant, and J. E. Maynadier, for the defendant, it is hereby

Ordered, adjudged and decreed, that the defendant Henry Thayer & Company, its directors, officers, agents and servants, be and they hereby are enjoined from making or using in any way the terra cotta-colored wrapper with white letters thereon, and the package in connection therewith, heretofore used by the defendant, for its preparation of iron and manganese, a specimen of which wrapper is annexed to the Bill of Complaint and marked "B," or any other wrapper or package therewith which imitates the wrapper used by the complainant, the M. J. Breitenbach Company for its Gude's Pepto-Mangan, a specimen of which wrapper is annexed to the Bill of Complaint and marked "A," and from selling or offering for sale any preparation of iron and manganese in any package or wrapper of a terra cotta color with white letters of the same style, shape and general arrangement as those of the aforesaid wrapper used by the plaintiff, the M. J. Breitenbach Company, and from using the words "Peptonate-Manganese" on or in connection with such terra cotta-colored wrappers with white letters of the same style, shape and general arrangement, as those of exhibit "A."

And the defendant is directed to forthwith deliver to the plaintiff or its attorneys, to be destroyed, all the terra cotta-colored wrappers and packages aforesaid like the said exhibit "B," which the defendant now has on hand or in stock or under its control in any way.

And it is further ordered, adjudged and decreed, that the defendant Henry Thayer & Company account to the plaintiff, the M. J. Breitenbach Company, for all profits which the said defendant has made from sales of said preparation in its said wrapper and package, and for all profits which the plaintiff would have made in the sales of its Gude's Pepto-Mangan but for the use made by the defendant of its said wrapper and package, and also for the damages to the reputation and standing of the plaintiff's said preparation, known as Gude's Pepto-Mangan, by reason of the said use by the defendant of its said packages and wrappers, and of its preparation therein contained, and for the damages otherwise sustained by the plaintiff by reason of the matters charged in the complaint.

And it is ordered, adjudged and decreed, that the plaintiff recover of the defendant the costs of this action.

By the Court, THEO. C. HURD, Clerk.

A true copy. Attest: (Signed) THEO. C. HURD, Clerk.

ST. LOUIS
Medical and Surgical Journal.

A. H. OHMANN-DUMESNIL, A.M., M.D.,
Editor and Proprietor.
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EDITORIAL DEPARTMENT.

All Communications, Contributions, Books for Review, etc., should be
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EDITORIAL.

THE EDITORIAL STAFF.

Many of our cotemporaries have their editorial page adorned with the names of a long list of collaborators, or an almost equally large number of department editors, and of others who are supposed to furnish copy for the publication. The journals which possess such a large number of contributors are not among the best by any means, for the simple reason that all these supposed helpers are simply a lot of drones who do nothing. They are flattered at seeing their names appear regularly, and consider this a cheap method of being advertised. In fact, they are merely ornamental adjuncts, and like all ornaments are of no use whatever to a medical journal from a utilitarian point of view. The publication of the names of these is very suggestive of that of the patrons of certain enterprises, and does but little in the way of making the publication better. Some few journals have a list of working collaborators who contribute

regularly, but who must be continually prodded to prevent their relapsing into complete negligence. In fact, these are a continual source of trouble and annoyance to the editor who desires to issue an interesting publication and one that will be useful as well.

We have noted that those journals which are accounted the best are not publishing the names of a long list of sub-editors and collaborators, but simply have a paid staff which does the work and is expected to do it efficiently. In this manner good work and regular service may be expected, and it is seen to be forthcoming. This method is the one which must be adopted by large weeklies if any degree of success is to be expected; and as a matter of fact it is the method which is in vogue with all these publications. The monthly can be edited by one and the work done by him more satisfactorily and in a shorter time than if hampered by a number of indolent and pseudo-workers. The multiplication of medical periodicals is proceeding at such a rapid rate that it will not be long ere every small medical society will have its own organ, with no editorial management worth mentioning, and with a staff of editors including every member of the society issuing said publication. There are a number of such, and an equally large number purporting to be issued in the interests of hospitals, which are really illy-concealed announcements of those hospitals, or a mass of testimonials for proprietary remedies strung one after the other. These are the sort which also have long lists of names as collaborators and editors of really capable men, many of whom never saw or even heard of the publications which bear their names.

The editorial staff is in most instances a fable, and that is resorted to for mercenary purposes or to bolster up a weak publication. Those whose names are used for this purpose should refuse to be placed in such doubtful positions, as it is anything but an honor to be caught in doubtful company. If they do efficient work they will hardly care to have it trumpeted abroad; if they do not they are masquerading as being that which they are not. The editor who is without such pretended aid is able to get on better and is not hampered with a large amount of material which would be better left out. We have had faithful collaborators who always had something good to

say. Changes in the editorial management produced changes in this and alienated these gentlemen and entailed a loss of their services. At present and under the present management the JOURNAL is without collaborators, but may have a corps which will work and do work of a valuable character. It shall not constitute a staff, but merely a contributory corps of capable workers. The successful publication of a journal is dependent upon the energy and industry of its editor, and he is leaning upon a broken reed when he depends upon an editorial staff. As Walter Scott said of literary work, it is a nice cane but a very poor crutch. What we desire is to have contributions from our readers and to hear from them often. We know that each one can write something worthy of publication which would certainly be accepted with thanks by us and duly appreciated as well. We do not want editors, but we do want contributors to our department of original contributions.

MEDICAL ASSOCIATION OF MISSOURI.

The coming meeting of the State Medical Society at St. Joseph, May 20, 21 and 22, promises to be not only large, but successful from every point of view. The different district and county societies are exerting every effort to send representative delegations. They are reorganizing and increasing their membership by the addition of new members. At St. Joseph there is already much activity shown by the local profession. Those who have the entertainments in charge promise many pleasant surprises for those who will be in attendance. The program committee expects to present the Association with a bill of fare of a medico-literary nature which will leave nothing to be desired. In fact, all indications point to a very pleasant and successful meeting, and those who attend should certainly not fail to induce their professional friends to join them. It is absolutely necessary to have a large and representative meeting, as many measures of an important nature are to be introduced and discussed upon this occasion.

The sessions will be held in the Auditorium of the Y. M. C. A., which is situated at a very short distance from Hotel Metropole, the headquarters. As the prospects are for a large attendance we would advise all those of our readers who intend

to attend the meeting to engage their rooms as soon as possible at the hotel in order to obtain as good quarters as possible. A rate of \$2.50 a day has been reserved for the occasion, and all possible courtesies will be shown to members and their families. The well-known hospitality of St. Joseph and cordiality of the medical profession there need not be dwelt upon here, as both are well known. In fact, it combines the depth of Southern courtesy and liberality with the breadth of the breezy West. We bespeak a pleasant as well as a charming time to all who attend this meeting of the State Association.

The railroads have all promised to make liberal rates for the members who attend, so that there exists no possible reasonable excuse to keep away. The Burlington road will, as usual, provide transportation which is unexcelled, and it will make a special effort to excel its already well-known palatial equipment. No one who can possibly avail himself of the advantages offered by this route will ever use any other. The advantages offered by it are so well known that they need no mention at our hands. Those members who desire further information in regard to the meeting and the arrangements which have been made can obtain such by addressing the Corresponding Secretary, Dr. Charles Wood Fassett, St. Joseph, who will very gladly furnish same.

In conclusion, we would once more urge every member to take his family with him and go to St. Joseph and enjoy a rest and an outing, renewing old friendships, making new ones, and combine profit with pleasure. These should certainly be inducements strong enough to induce a man to leave home and enjoy a little relaxation.

Medical Society of the Missouri Valley.—This association held its semi-annual meeting at Lincoln, on March 20, with a large and representative attendance. Dr. Richard C. Moore, of Omaha, president, in the chair. Chicago was represented by Drs. Moyer, Findley and Coulter. Three sessions were held, and sixteen interesting papers read. The *Medical Herald* was again made the official journal of the society. After the evening session, the members were invited to the banquet hall of the Lindell Hotel, where a sumptuous repast awaited them. The next annual meeting will be held in Sioux City, Iowa, September 18, 1902. Physicians located in the Mississippi Valley will not only be welcome to this meeting, but are invited to participate.

SOCIETY PROCEEDINGS.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting November 5, 1901.

JOSEPH COLLINS, M.D., President.

PORTRAIT OF DR. E. C. SEGUIN.

Dr. J. Arthur Booth presented to the society a portrait of one of the founders of the society, the late Dr. E. C. Seguin. The portrait was donated by Mrs. Seguin.

A CASE OF DISSEMINATED SCLEROSIS.

Dr. William M. Leszynsky presented a man whom he had first seen about two years ago. At that time he was thirty-two years of age, and stated that he had been well up to eighteen months previously. At that time he had suffered from occasional diplopia, but it had since almost disappeared. He had had occasionally a staggering gait and speech had become slow. There had also been some difficulty in swallowing. There had been no headache, tinnitus or vomiting, and no bladder symptoms. When first seen he had complained of being nervous and emotional. The examination showed him to be healthy in appearance. There was slight hesitancy in speech, and he was disposed to break into tears on slight provocation. There was slight horizontal nystagmus on efforts at fixation. The fundi and the visual fields were normal. His gait was slightly ataxic, and there was slight dragging of the right leg and a tendency to fall to that side. Both knee jerks and Achilles reflexes were exaggerated. The examination of the urine was negative. On January 23, 1900, there was slight paresis in the left posterior thigh muscles and slight ataxia in the left upper extremity. In May it had been noted that he was not so emotional, but he dragged the left leg in walking and right hip, and the scapulæ were prominent. In December it had been noted that the static ataxia was well marked. In March of the present year there was slight rigidity and dragging of the right leg in walking with tendency to fall to the right. At the present time, the pupils are nor-

mal; there is slight oscillation of the eyeballs; slight ataxia of the right upper extremity; muscular power is perfect; the speech is slow and uncertain; there is a tendency to fall towards the left with a paraplegic gait. He stands with difficulty on either leg alone. Both knee jerks are equally exaggerated. A specimen of his handwriting was exhibited. During the past year there had been practically only an increase in the cerebellar incoordination and in the defect of speech. The man presented none of the stigmata of hysteria and was in no way neurasthenic. While he did not present all of the characteristics of disseminated sclerosis there were sufficient symptoms present, the speaker thought, to warrant this diagnosis.

Dr. B. Sachs thought there could be no doubt about the correctness of this diagnosis. It seemed to him a good example of the rather rare cerebellar form of multiple sclerosis.

TUMOR OF THE PONS.

Dr. Joseph Collins presented some sections from a tumor of the pons. They had been taken from a woman about forty years of age, who had gone to a dance on August 24, 1900, feeling quite well. After dancing a short time, the evening being very hot, she fell over and remained unconscious for two hours. She said that her head felt heavy and her feet very light. The next morning on attempting to do housework, she found she was very dizzy and that the left side of the body did not seem to be under proper control. During the next three weeks there had been three transitory attacks of unconsciousness. There was in addition pronounced ataxia of the extremities, but no paralysis. There was also constant vertigo, with occasional vomiting, and a feeling of great weakness. She also suffered from a distressing diplopia. After an interval of about a week, during which the symptoms had abated, they had again returned. She had then exhibited inebrious speech and had suffered from nausea on the slightest movement. He had seen her about seven weeks after the original attack, and examination had revealed paralysis of the right abducens and of the right facial with no reaction of degeneration; slight anesthesia of the upper two branches of the fifth nerve with no involvement of the lower branch; also hemi-ataxia and an exaggeration of the tendon jerks all over. There was not much headache

at the time, and no optic neuritis. The woman died with symptoms of bulbar involvement. The lesion had been diagnosed as an acute softening in the left half of the pons. On autopsy, a section through the pons revealed a fluid mass, but no evidence of a tumor or of an increase in the consistency of the pons. It had only been after hardening and cutting the pons that it had been found that there was an enormous angiosarcoma involving the left etage of the pons. It had pushed over the raphe and infiltrated the right half of the pons as well. The explanation of the lack of symptoms that one would expect with such a condition was that the growth had infiltrated between the motor and sensory fibres of the pons, but had failed to destroy them until a short time before the death of the patient. This was entirely at variance with what was usually observed in a growth of this character. Both acoustic nerves had escaped. At no time had there been any disturbance of vision, though careful tests had been made to determine this point.

Dr. M. Allen Starr said that last March he had seen, in consultation with Dr. Biggs, a patient who had presented a rather similar set of symptoms, namely, diplopia and paresis of several of the ocular muscles on both sides without a typical ophthalmoplegia externa. The patient also had anesthesia of one side of the face, and had the kind of speech often observed in bulbar palsy, together with a marked ataxia. There was no choked disk, so that the question had arisen as to whether the condition was one of softening or tumor. In the absence of headache and choked disk he had inclined to the diagnosis of softening, but the autopsy had shown an infiltrating glioma.

CLINICAL AND ANATOMICAL REPORT OF A CASE OF MULTIPLE CONGENITAL DEFORMITIES.

Drs. B. Onuf and J. Fraenkel presented a joint paper, which was read by Dr. Fraenkel. The subject of the report was a girl who, at the age of four years, had been admitted to the Montefiore Home on September 22, 1895. The condition of the extremities had been noticed immediately after birth, and it was said that convulsions had occurred frequently during the first year. One year and a half before admission an osteotomy had been done at the hospital for club-foot. During her stay in the

Montefiore Home the girl had been frequently examined by various specialists. The child showed normal cerebation, but the emotions were displayed in an explosive manner. The chief features were: Motor disturbance of all four extremities; asymmetry of facial innervation, the face being drawn to the left; atrophy of the muscles of the forearm and fingers; drop-wrist on both sides; decided diminution in the motor power of forearms and hands; absence of the reflexes of the upper extremities; lower extremities decidedly tapering, and the right one the longer; decided diminution of the motor power of the flexors of the leg and extensors of the foot. On attempting to walk, standing erect, an intense lordosis developed, and there was a cock-step gait. The clinical picture had remained practically unaltered up to the time of her death from diphtheria, in June, 1897. The autopsy had been made by Dr. George R. Elliott. There was a subluxation of the hand and forearm forward. The palmaris longus muscle was absent. The ulnar half the flexor sublimis digitorum was much reduced in volume, while the radial half was composed of fat only. The flexor profundus digitorum was also quite fatty. The flexor longus pollicis was converted into fat and the supinator longus into a band. The muscles of the extensor side of the forearm were all small but were not fatty. The thenar muscles were absent with the exception of the flexor brevis pollicis. There was a dislocation of the left hip upward and forward without any break in the capsule, and the head of the bone was situated forward of the natural acetabulum. The new acetabulum was made up of the thickened capsular ligament, but was otherwise apparently normal in shape. The pelvic and thigh muscles on the side of the dislocation were either fatty or atrophic. Microscopical examination of the psoas and entire muscle mass of the three adductors demonstrated: (1), A reduction in the volume; (2), an increase in the perimuscular fat tissue in some, and interfascicular fatty tissue in others at the expense of the muscular tissue proper; (3), increase of the perimuscular fat, chiefly in the adductor group of the left thigh; (4), increase of the fibrous connective interstitial tissue; (5), a vascular change, chiefly a thickening of the vessel walls; (6), disintegration of muscle fibres in some muscles; (7), preservation of a relatively large number of muscle spindle cells in the affected

muscles; (8), changes in the intermuscular nerve bundles, chiefly a scarcity of the nerve fibres and thickening of the perineurium. No less than 44 spinal nerve roots were examined microscopically and changes were found not only in many anterior, but also in many posterior roots. The spinal cord on gross examination showed an unusually meager development of the cervical and lumbar enlargements. Microscopically there were noted: (1), A shrinkage of the nerve cells of the anterior horns in most levels of the spinal cord; (2), a shrinkage of the cells of Clarke's columns in certain levels; (3), vascular changes and cavities in the gray matter, chiefly in the cervical and dorsal regions; (4), the presence of apparently undeveloped cells at certain levels; (5), proliferation of the ependyma of the central canal in certain regions; (6), changes in the white matter, probably by artefacts. On gross examination the brain exhibited nothing peculiar. Changes of an atrophic order and apparently the presence of certain cells in an embryonic state were noted on microscopic examination. The cells most frequently affected were the larger pyramidal cells. No vascular changes were noted. The authors concluded that in this case the primary cause of the muscular changes, and incidentally of the deformities, was either a poliomyelitis or a central neuritis of prenatal origin. The cortical changes were thought to be secondary to the spinal changes. To give some idea of the minuteness and exhaustiveness of the examination made of this case, it should be noted that 5,500 sections were made and prepared for examination.

Dr. George R. Elliott presented the right forearm and the pelvis of this child, and demonstrated some of the muscular peculiarities noted in the report. The head and shaft of the dislocated bone, he said, were normal except that they were small from disuse. The dislocation was upward. The speaker emphasized the fact that this was not the form of dislocation known as a congenital dislocation of the hip; true congenital dislocation of the hip was almost invariably backward on the dorsum of the ilium. The large ligamentum teres seemed to be only a physiological hypertrophy. There was nothing in the drop-wrists to warrant them being called congenital dislocations; they were rather the result of the pareses. With reference to the peripheral theory, Dr. Elliott said he could not

quite understand how this would explain the picking out of portions of muscles and having them replaced by fat while others remained absolutely normal.

Dr. B. Sachs said that, having seen the child during life, he had never doubted that the diagnosis lay between an intrauterine poliomyelitis and a developmental defect. The paralytic conditions were secondary to the central change. In spite of the elaborate investigation that had been made, the report was not wholly satisfying as to the character of the process. It did not seem to him that developmental defect of the gray matter of the cord could not be excluded by the findings reported. It would have been interesting to follow up the anterior spinal artery and determine if this vessel were properly developed and had functionated properly. If it had not been normal, almost all of the changes in the gray matter described in the report could have been easily explained in that way. The case seemed to him to offer an example of a possible arrest of the development of the gray matter of the cord. He would like to know whether any unobjectionable case of intrauterine poliomyelitis had been reported.

Dr. V. P. Gibney said that, so far as he knew, this was the first case of intrauterine poliomyelitis that had been reported. In various discussions on club-foot, the subject of intrauterine poliomyelitis had been pretty effectually disposed of. He agreed with Dr. Elliott that the dislocation in this case was not a true congenital dislocation of the hip.

Dr. Joseph Collins said that, judging from the report, he would not be satisfied to admit that the case was one of infantile poliomyelitis, because nothing had been said regarding the changes in the substance of the cell as evidence that these cells had undergone the parenchymatous changes which cells do suffer in poliomyelitis of every kind. He understood that the reason these changes had not been described was because the specimens had not been properly hardened for the Nissl stain. This was a great obstacle to the acceptance of the statement that the lesions were dependent upon a poliomyelitis. In poliomyelitis of every kind the external contour of the cord does not change, yet in the case reported shrinkage of the cord was prominent. Again, the cells were reported to be quite scarce, but the cells themselves were not materially disintegrated as

should have been demonstrable in specimens so prepared. He found it impossible to imagine that this perceptible decrease of cells in size and shape in the motor region was purely secondary to the smallness of the cells in the cervical and lumbar regions. The changes in the muscles seemed to indicate very distinctly that they were secondary to central changes.

Dr. B. Onuf closed the discussion. He said that he thought that even if the anterior spinal artery had been badly developed it would not explain why the changes observed were so much more marked in some regions than in others. Again, the intramuscular nerve bundles appeared degenerated. If there had been a developmental defect in the spinal cord one would look for absence of certain nerves and expect the rest to appear normal. In his opinion, the changes found in this case were fairly typical of poliomyelitis. The number of the cells appeared, on the whole, to be diminished. If this were a case of intrauterine poliomyelitis it was probable that comparatively few lesions would be found so long afterward as evidence of the process that had taken place. The changes of contour were probably explicable also on the ground that the process had lasted so long. The distribution of the cell changes was far from being uniform. He saw no reason why the cortical changes should not be looked upon as secondary in view of the fact that the process must have occurred very early in life. In cases of congenital porocephalus of the right occipital lobe marked atrophy of the optic nerve had been observed and reported. In a case of this kind it was not right to draw conclusions from one or two points, but only after a careful study of the whole picture.

THE FINER MICROSCOPIC STRUCTURE OF THE CORTICAL AREAS IN MAN AND SOME MAMMALS.

Dr. M. G. Schlapp made some remarks on this subject. He said that he had been struck with the great differences in the descriptions of the cortex as given by different writers. The earlier authors described five or six layers in the occipital lobe, whereas more modern writers described eight or even nine layers. These discrepancies he would explain by the fact that different animals had been used for their observations. The higher one goes in the animal kingdom, the more the philogenetic

secondary centre tends to replace the philogenetic primary centre. The secondary centre does not control all movement, however. Plates were exhibited to show the differences in different animals. The motor area is not developed in the lower animals, so that it can be distinguished from the rest of the cerebrum, but such an area can be observed in the dog and in the monkey. In the dog it is very near the frontal pole, whereas in the monkey it is further back. In the monkey is found an eight-layer structure. The cortical sight centre is very much developed in the monkey and in man. These differences in structure were demonstrated under the microscope. The granule cells are characteristic of a highly developed cortex. Most of these cells have ascending axons or very short axons. They are the cells which receive the impulses. These cells are very much more developed in the sensory than in the motor areas. In the sight centre is found the eight-layer type. The auditory centre can be recognized, but is not so sharply distinguished as is the sight centre.

Stated Meeting, May 7, 1901.

JOSEPH COLLINS, M.D., President.

A CASE OF SUCCESSFUL MORAL TREATMENT OF A FORM OF
HYSTERIA.

Dr. Mary Putnam Jacobi reported this case. The patient was a woman of twenty-four, belonging to a neurotic family. Her symptoms had begun four years before coming under observation by an endometritis and uterine retroflexion. She had been subjected to a good deal of local treatment, including curettage and an Alexander's operation. The latter procedure had relieved the dysmenorrhea, but had been followed by a fixed pain in the abdomen not increased by pressure. She claimed to be unable to walk or stand because of severe pain in the back and abdomen which it induced. Examination showed no motor inability, and when started to walk she could walk very readily and energetically. The uterine disease had entirely disappeared. She was moderately anemic and quite constipated. The speaker said that at some portion of the cerebro-spinal tract an area of nerve tissue must be so nearly on the border of exhaustion that an attempt at function carries it be-

yond this line. It was conceivable that with the exhaustion of the cerebral centre the very thought of the movement would be followed by pain. According to Sanier such hysterical pains point to a partial anesthesia in the brain. Apart from the intermittent pains excited by the sense of walking, there seemed to be a permanent and distressful sense in the back requiring support. In a previous experience with a bed-ridden patient, she had succeeded in making her walk within a week by the application of a Taylor spinal brace. This simple device had given great relief. The necessary nerve stimulus had been secured by the application of static electricity. This remedy seemed to be almost a specific for hysterical pains. The subject of the present report had been persuaded to leave her home and take a room near Dr. Jacobi's office. At first, it was not difficult to get her to walk a portion of a block, but when finally asked to walk a whole block she obstinately refused. All sorts of changes in the treatment and methods of management were necessary in order to conquer the patient's wilfulness, yet this was essential to further progress. Her mode of life for each day was mapped out most minutely. By the most persistent painstaking efforts exerted for a period of four months the patient was finally conquered. During the last eighteen months she had been living a fairly normal life. Dr. Jacobi said that in hysterics the habitual dependence upon fellow minds is immensely intensified. To get rid of a false idea, it must be starved out and atrophied by an entire lack of support from the minds of those around the patient. The essential element of the treatment of this case was the bringing of the personality of the patient under the control of another mind.

Dr. B. Sachs commended the general plan of treatment described in this paper, though admitting that it required far too much expenditure of time and attention to detail to make it generally available.

Dr. Ira Van Gieson expressed his admiration for the report just presented, for, he said, it was an earnest of the time when psychological cases would be treated less by medicine and more by psychology. This case afforded an example of what could and should be done in hundreds and thousands of other similar cases. He had been particularly impressed with the statement made concerning the necessity for causing an atrophy of each

false idea—the reverse of the process by which the hysterical condition is induced. He thought the period of treatment in the case reported might perhaps have been materially reduced by suggestive therapeutics.

Dr. Jacobi said that the objection made to the treatment on the score of its time-consuming nature was hardly sufficient to condemn it. She had seen a number of cases that had gone from one physician to another without benefit, although, doubtless, physicians generally were well acquainted with the principles which should underly the successful treatment of such cases.

THE MORBID ANATOMY OF A CASE OF PROGRESSIVE
MUSCULAR ATROPHY WHICH WAS CLINICALLY
ONE OF AMYOTROPHIC LATERAL SCLEROSIS.

Dr. Carlin Philips read this paper. He said that the patient was a woman of thirty-six, who had come under Dr. Collin's observation for the first time, on June 17, 1897. She had then complained of severe frontal headache, inability to lift the head from the pillow without the help of the hands, tremulousness of the hands, and easily induced fatigue. She had lost thirty pounds. Examination showed atrophy of the supraspinatus and of the right shoulder girdle, and these muscles showed fibrillary twitchings. The knee jerks were increased; there was ankle clonus on both sides; there was no affection of the special senses. Six months later she had complained of dyspnea and had shown loss of will power and suicidal impulses, together with some difficulty in swallowing. The atrophy of the muscles was more marked, and extended to the trapezius muscle. She began about this time to have attacks of major hysteria, and the atrophy increased rapidly. The gait became spastic and the body rigid. She had the use of her limbs up to about six weeks before her death on May 25, 1899. An autopsy was allowed only upon the brain and spinal cord. The weight of the body was forty-eight pounds. The meninges of the brain were anemic. The brain was normal in gross appearance, as was also the spinal cord. The latter was carefully segmented and prepared in various ways for examination. In the second cervical segment was a concentric zone encircling each anterior horn and involving the

anterior mesial and anterior lateral portions of the fundamental columns, while the tracts of Gowers and the pyramidal tracts were left intact. Corresponding to the degenerated areas in this segment the neuroglial proliferation was very slight. The fourth cervical segment showed a sinking in of the periphery just at the margins of the anterior roots, and this change of contour extended down several segments. The gray matter extended laterally, giving a sickle-shape to the degenerated area. While there was no evidence of the destruction of the cells, the most striking feature was the extensive destruction of these cells. The fifth cervical segment was practically the same as the fourth. The sixth segment showed a tongue-shaped area of degeneration extending almost to the posterior horn. In the seventh segment the anterior roots showed more marked degeneration. From the first to the fourth dorsal segments inclusive there was a zone of degeneration encircling the anterior horns, and becoming less intense until almost invisible in the fourth segment. The disappearance of the motor cells throughout these four segments was more difficult to determine than in the case of the cervical segments, but apparently there was about the same amount of atrophy in these cells. From the fifth to the eighth segments there appeared to be an increase in the neuroglial tissue. From the twelfth dorsal down to the end of the cord the area occupied the peripheral lamina of the ventral half of the cord, and extended around to a point opposite the apex of the lateral horn, where it expanded into a lateral mass. The lumbar and sacral regions were found to be as severely involved as the cervical. Throughout the cord the blood vessels were apparently normal. Nissl preparations of the medulla showed small areas of periarteritis with small cell infiltration of the adjacent gray matter. The anterior roots were found to be atrophic. The crossed pyramidal tracts were apparently unchanged.

BOOK REVIEWS.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., assisted by H. R. M. LANDIS, M.D. Vol. I. March, 1902. 8vo., pp. 462. Surgery of the Head, Neck, and Chest—Infectious Diseases, Including Acute Rheumatism, Croupous Pneumonia, and Influenza—Diseases of Children—Pathology—Laryngology and Rhinology. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, per volume, \$2.50, by express prepaid; per annum, in four volumes, \$10.00.

We are not surprised that this publication enjoys the great popularity which it has steadily gained since the issue of the first volume when we take into consideration the ability and talent of the editors of the various departments, and the value of the selections which they make, adding thereto their own comments, which are of the highest critical value and add in no little measure to the usefulness of this publication. The volume before us is, if anything, an improvement upon its predecessors. The selections are culled from the best medical literature of the past year and nothing new or useful has been permitted to be omitted or overlooked. In fact, the completeness shown, is in itself a more than sufficient recommendation for the work. This makes it a useful one for reference, more especially as it constitutes in itself an official herald of those facts which, later on, will be crystallized in larger works devoted each one to a single topic.

The surgery of the head, neck and chest is considered by C. H. Frazier, who writes in a most interesting manner on the recent advances and the really wonderful progress which has recently been made in the surgery of the Gasserian ganglion. He also discourses in an equally instructive manner on the surgery of the heart, which has developed to such an extent recently that wounds of the heart are operated upon with little or no hesitation on the part of the surgeon. A recent case of successful suture of the heart for a stab wound in this city bears abundant testimony to this fact. As another example of the hardiness with which operations on the heart are carried on successfully, may be mentioned the tapping of the pericardium for serous effusion. In the department devoted to infectious diseases F. A. Packard deals with tuberculosis, the various eruptive diseases, and typhoid fever. The portion devoted to the last is particularly full and possessed of more than ordinary

interest. In this our previous ideas in regard to diagnosis and treatment will be found entirely revolutionized and there is no doubt whatever, in our opinion, that this is not the end. This, like other parts of this book, is deserving of most careful and thorough perusal.

The part devoted to pediatrics, though short, is excellent. Floyd M. Crandall, who has this in charge, has certainly made it interesting, and this is important at this day when we consider the great interest which has developed, of late years, in the subject of pediatrics. The recent advances in the important matter of infant feeding are thoroughly considered and add increased value to the contribution. The largest, and by far the most important part, is that devoted to pathology. Ludwig Hectoen gives a complete summary of the work being done in this branch, and with the rare discrimination of a master he gives his readers that which will prove of the greatest benefit to them. His acknowledged superiority in this branch is a sufficient testimonial to the ability with which he has done his work, and we would advise any one desirous of becoming posted on the newer and more advanced pathology to consult the pages which have been revised by him. This portion alone is worth many times over the price of the volume.

Laryngology and Rhinology are written by St. Clair Thomson. In this part he has made a particular point to show the relations of these branches to general medicine, and both general practitioners and specialists will find much that is useful in this. The section on Otology, by R. L. Randolph, concludes the volume, and the subject is handled in a manner analogous to that of Thomson. The problems of otology are brought up in a plain manner and discussed in an intelligible way. He who has read the entire volume will find that his interest never flags, and he will discover much that is both good and new, two qualities which unfortunately do not characterize every book.

The publishers have made a handsome book of this volume and one that will prove of the greatest value for purposes of reference. They have demonstrated that, in the way of medical publications, there were some needed to fill a long-felt want, and this is certainly one of them. We shall look forward to the next volume with increased interest and anticipations of fresh pleasure.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. By a Corps of Distinguished Collaborators. 1902. Twentieth Year. 12mo., pp. 688. Illustrated. [New York: E. B. Treat & Co. 1902. Price, \$3.00.

The fact that this publication is in its twentieth year of pub-

lication is a sufficient proof of the popularity which it enjoys as well as of the demand which has been made for it. The increase in the number of its pages is also an indication of its increasing favor with the medical profession. It is a progressive book which truthfully records progress, and were it for this reason alone it is fully deserving of the marked popularity which it enjoys. We always welcome each issue and place it where it can be readily reached, as it quickly and readily announces many questions which are of such a nature as to preclude the employment of much time to determine a certain question which suddenly arises. It is in this particular that it is more than ordinarily valuable as a quick reference book. We have noted the satisfaction with which it has been consulted by a practitioner who had but a very few moments to spend at the time and felt correspondingly pleased at the ease and rapidity with which he was enabled to remove a doubt. But it is hardly necessary to dwell upon the many advantages offered by this work.

The issue of the twentieth year which is before us, sustains well the deserved reputation of this publication. It is, if anything, superior to all the preceding ones, and is full of matter of unusual interest and importance, giving a very full review of the progress made in the departments of medicine and surgery during the past year. The book opens with a Review of Therapeutic Progress for 1901, by William Murrell, M.D., F.R.C.P., together with an article on Toxins and Anti-Toxins, by William Murrell, M.D., and Prof. Joseph McFarland, M.D. Part II. constitutes the Dictionary of Medicine and Surgery, which includes a number of special articles, such as Arsenical Poisoning, Clinical Examination of the Blood, Diseases of the Ear, Disorders of Metabolism, Formic-aldehyde in the Treatment of Phthisis, Lateral Curvature of Spine, X-Rays, and Sanitary Science. Of course the various advances made, in regard to all diseases, during the past year are noted in that length which their importance deserves. It is this portion which forms the bulk of the work and which is so valuable for reference. We are given advances in therapeutics, pathology, surgical operations, diagnosis, and the various specialties in a manner both clear and concise. A not unimportant part is the list of the Books of the Year, which forms a very useful bibliographic guide to the medical works published in 1901, with the names of their publishers.

The present volume is well and liberally illustrated, containing as it does twenty-five full-page plates, many of which are illustrated. In addition to this there are fourteen charts of fevers and sixty-seven illustrations in the text. From this it will be seen that the work is thoroughly illustrated and the colored plates are especially worthy of commendation as they

are well made and artistic in execution to a marked degree. When this is taken in connection with the high class of literary work done by acknowledged authorities it must be acknowledged that the Annual is a remarkably cheap publication, so far as the price at which it is sold is concerned. It is also a further guarantee that it has come to stay, and to us it also indicates that it will not only retain all its past readers, but will gain new ones in all those physicians who have an opportunity to see it and examine its contents.

The publishers have made a handsome volume of the work, it being well printed upon a superior quality of paper and substantially bound, that it will stand that use to which it will no doubt be subjected by all those fortunate enough to possess a copy. We are pleased with the work and can unhesitatingly recommend it to our readers.

Manual of Childbed Nursing, with Notes on Infant Feeding.

By CHARLES JEWETT, A.M., M.D., Sc., D. Fifth edition. Revised and Enlarged. 12mo., pp. 84. [New York: E. B. Treat & Co. 1902. Price, 80 cents.

This little book of Dr. Jewett, the accomplished Professor of Obstetrics in the Long Island College Hospital, was originally written as a remembrancer for the nurses who listened to his lectures. Its popularity induced him to publish it as a small handbook for both nurses and general use. He adapted it to the latter use so successfully that it has now attained its fifth edition. It is written in the style of short paragraphs which contain all the pith of that which may be desired or considered useful. An added portion which is of more than ordinary importance is that devoted to infant feeding, a by no means small portion of a book of this character. We have no doubt whatever that all nurses will find this a most useful and helpful little book, and every woman who has had or expects to have children will find it of great practical value.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., assisted by

H. R. M. Landis, M.D. Vol. I. March, 1902. 8vo., pp. 462. Surgery of the Head, Neck and Chest—Infectious Diseases, Including Acute Rheumatism, Croupous Pneumonia and Influenza—Diseases of Children—Pathology—Laryngology and Rhinology—Otology. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, per volume, \$2.50, by express prepaid; per annum, in four volumes, \$10.00.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. By a Corps of Distinguished Collaborators. 1902. Twentieth Year. 12mo., pp. 688. Illustrated. [New York: E. B. Treat & Co. 1902. Price, \$3.00.

Manual of Childbed Nursing with Notes on Infant Feeding. By Charles Jewett, A.M., M.D., Sc., D. Fifth Edition. Revised and Enlarged. 12mo., pp. 84. [New York: E. B. Treat & Co. 1902. Price, 80 cents.

The Cow Pea is the title of the latest publication issued by the Experiment Farm of the North Carolina State Horticultural Society at Southern Pines, N. C. This book, neatly bound and illustrated, in plain and concise manner discusses the value and uses of this important crop, the Cow Pea. Every reader can get a copy free by writing to the Superintendent of Experiment Farm, Southern Pines, N. C.

New Book on Press.—The early appearance of Regional Minor Surgery, by Geo. G. Van Schaick, M.D., attending Surgeon to the French Hospital and to the St. Vincent de Paul Orphan Asylum, New York, is announced. The book contains about two hundred (200) pages, and is profusely illustrated with drawings especially made for this book. It is bound in cloth and white leaf, printed on heavy book paper, and devoted to the treatment of the surgical conditions that are met with in the daily practice of every physician. This book is thoroughly practical and presents the subject in an interesting and instructive manner. (Price, \$1.50.) It is published by International Journal of Surgery Co., 100 William Street, New York.

Medical Bulletin of Washington University is a quarterly quarto of 20 pages, issued to its alumni by the Medical Department of the University. The first number is quite an interesting one and of a high order of excellence. This publication is edited and published under the supervision of the faculty by Given Campbell, M.D., H. S. Crossen, M.D., Martin F. Engman, M.D., Phil. Hoffmann, M.D., H. McC. Johnson, M.D., A. F. Koetter, M.D., W. M. Robertson, M.D., W. A. Shoemaker, M.D., John Zahorsky, M.D., Albert E. Taussig, M.D., Secretary. We have no doubt that, with the encouragement

and backing which it has, the *Medical Bulletin* will shed lustre upon Washington University, and be a credit to St. Louis medical journalism. The only cause of regret we have, is that it will not appear more frequently.

Johnson's First Aid Manual.—Suggestions for Prompt Aid to the Injured in Accidents and Emergencies. Edited by Fred B. Kilmer. 8vo., pp. 113. Illustrated. [New Brunswick, N. J: Johnson & Johnson. 1901. Price, Cloth, 50 cents.] This is a small manual designed to accompany an emergency surgical case. It is well written, and full of useful, practical hints, not so much after the method of any particular surgeon, but rather based upon practical experience. It is not only devoted to surgical emergencies, but also includes all those which may occur in general practice, and such as are called domestic. It is a valuable booklet and is only marred by a great deal of advertising matter in its text. That it will be read with profit by all those who obtain a copy we do not doubt.

Actinothrapy (Gottheil).— In a preliminary communication upon the use of concentrated light in the treatment of dermal affections, W. S. Gottheil briefly reviews the work done by Finsen, Kime and others in this field, and describes the arc light that he employs for the purpose. This is at present the only available source for the actinic rays of sufficient volume and intensity for therapeutic employment. Sunlight is of course the best, and is costless; but it is too uncertain for satisfactory use. No combination of incandescent bulbs, run on the ordinary continuous or alternating commercial current, is sufficiently actinic, and the apparatuses arranged with them practically give us heat and no light baths.

The author employs an apparatus called the Actinolyte, made by Kliegl Bros., of New York, which can be adapted to either the continuous or the alternating current, uses from 25 to 55 ampères, and gives a concentrated circle of light of from 20,000 to 30,000 candle power. He is not prepared as yet to publish his results; but the progress of cases of lupoid and syphilitic ulceration has been most encouraging. The cosmetic results of this non-operative and painless method of treatment are especially good; a point of the greatest importance, of course, when the face is involved.—*The Medical News*, July 6, 1901.

SELECTED ARTICLES.

THE DOCTRINE OF NORMAL PARASITES.

A "normal parasite" is one which causes to its host no injury. Perhaps the term "harmless parasite" would be better, for it is scarcely meant by the term "normal" that the guest is in any sense necessary to the health of its entertainer. In the vegetable kingdom, and in some instances amongst the lower animals, it would almost seem that the parasite is normal in the latter sense, but probably there is no proof of such relationship between the two in the higher animals. We have nothing analogous to a Lichen, in which a fungus and an alga live in perpetual and united companionship, and produce a new and complex organization which differs from both, but yet is not a hybrid. Nor have we anything which approaches the condition of that sea-anemone, the soft body of which is always green from the presence in its substance of the cells of a green seaweed. If any condition of normal parasitism of that type occurs in the tissues of the higher animals—it is quite possible that it may—it has yet to be discovered. The researches of bacteriologists have, however, made it quite certain that living organisms may habitually infest the human subject without producing any ill results. They infest chiefly the mucous membranes, but there is nothing to discredit the suspicion that they may be found in more deeply placed parts. Some of them appear to be quite and always harmless, but others which are for the most part innocent may, upon occasion, manifest virulent properties. Of these latter the *Pneumococcus* (Franckel's diplococcus), the *Bacillus coli communis* are good examples. The pneumococcus is present in the nasal cavities from year to year in those who appear quite well, but it may at times cause pneumonia or fatal peritonitis.

It is obvious that we have here two vistas of most important speculation and investigation opened before us. In the first place we have to ask, respecting other parasites hitherto deemed always hurtful, whether they may not have had their periods of

innocency, and respecting all we have to seek with diligence as to the kind of influence under which their aptitudes change and they become virulent. The bacillus of tuberculosis, for instance—may it become under favorable conditions a normal or harmless parasite? So also of that of leprosy. Of the latter we know from unquestionable evidence that a man may have shown no evidences whatever of its presence for twelve or twenty years from the probable date of its reception. Of tuberculosis we know that after a temporary manifestation of activity it may, so to speak, go to sleep for thirty years and at the end of that time wake up into renewed activity in the self-same structure which was its first home. It is in cases of cured lupus chiefly that we witness this astonishing feat of latency. Is it fair to say that during these long intervening periods the parasite has been present as a "normal" one? If we might adopt this hypothesis of possible "normality" it would clear up many of the difficult questions in the clinical history of tuberculosis. Most especially it would help us to interpret the phenomena of heredity. Nor would it in this instance be difficult to assign explanations of the assumption of activity, for the facts have been abundantly discussed under the name of "predisposing influences." We have been assured, for instance, that an attack of measles renders its subject prone to receive the infection of tuberculosis; it may, perhaps, be that it excites to activity a "normal" parasite already present. A very interesting problem is also suggested as to whether certain ingredients in food may be the means of thus stimulating normal parasites and transforming them into very injurious agents.

The topic with which we are dealing is one of far-reaching importance. Our knowledge of the life history of these minute forms of vegetable or protozoic life is as yet in its infancy, and we must not assume that we know everything respecting the conditions under which they can exist,—*The Polyclinic*

SANITARY CONDITIONS IN MANILA.

Mail reports from Manila, dated Feb. 23, go to show a very satisfactory condition of affairs in that city, from a sanitary point of view, the city being freer from communicable disease than at any previous time in the three years of American occupation. There had been only two cases of plague in the present year up to the time the report was written. No case of plague occurred in January of this year, as compared with 22, 18 and 30 cases occurring during the same month in previous years. While the health authorities are doing everything in their power to place Manila in a sanitary condition, they find much to contend against in native ignorance and indifference. Many native householders object strongly to catching and turning over to the Board of Health the rats on their premises, for fear lest a plague-affected rat should be found among them and they be put to expense and their domestic quiet be disturbed by the board's cleansing and disinfecting operations. Others object to vaccination and inoculation, and waste half the time of the public vaccinators in arguing the question of submission to the operation. The Chinese are the best patients in this respect, looking upon vaccination and preventive inoculation as a joke arranged for their special benefit. All the worst of the buildings in the old walled city have now been removed, and the work of inspection and cleaning up is continued daily. The report says that the condition of the city is much improved, even as regards conditions existing a year ago. The report of the Board of Health says, however, that until many radical sanitary defects are remedied the mortality among the lower classes will remain greater than necessary. The damp and humid habitations of this class contribute largely to the death-rate, the lower floors of dwellings in Manila being too damp for human habitation. The board says that before a satisfactory sanitary condition is reached the expenditure of large sums of money on permanent municipal improvements will be necessary. Among the improvements most needed are a modern sewerage system, better drainage, increased water supply and filtration beds, and suitable public parks.—*Boston Medical and Surgical Journal*.

MELANGE.

Vaccination Vindicated.—The following from the Baltimore *Evening News* will be read with interest by all physicians: Recent exaggerated reports of cases of lockjaw in a New Jersey town, alleged to have resulted from vaccination, were so widely circulated that it is well to emphasize the real facts as they are shown in the official report of the Board of Health of that town and reinforced by reports from the State Board of Health and individuals. These show that the stories of impure virus were wholly false. Samples of the virus were purchased for test from fifteen different pharmacies, the persons selling the same having no knowledge that they were to be tested. They were found entirely free from tetanus germs. But the Board did not rest with this test. It examined the history of each of the cases of lockjaw, and found that the vaccination had been done in a correct and cleanly manner, but that the persons vaccinated had not observed proper precautions afterward. It is known that tetanus germs were in the air. A boy with a gunshot wound, in the same neighborhood and during the same period, was taken with tetanus. And in every case of lockjaw, occurring after vaccination, the vesicle had been broken open, allowing access of air and dirt and whatever germs were in them. There was other evidence confirmatory of this view that the lockjaw resulted from carelessness after vaccination, and not from the materials used in the operation. The limits within which tetanus occurs after vaccination are five and nine days. In each of these cases in New Jersey the tetanus occurred more than three weeks after vaccination. More than half a million of Philadelphians were vaccinated at the same time with the same makes of virus, and not a single case of lockjaw resulted. And the virus was tested on various animals most susceptible to tetanus, and not a case developed.

These tests prove conclusively that vaccination in itself is harmless, but they make necessary a word of caution to those who have been vaccinated. The inclination to scratch and break the vaccine vesicle should be resisted. The vesicle should be carefully guarded from injury. When it is broken open, like

any other open sore, it is liable to infection from tetanus germs which may be in the air. It is recommended by authorities that especial care in this respect be taken by persons handling horses, as the tetanus germs have a great fondness for those animals. And the same precautions should be observed by persons suffering from other open wounds.

The anti-vaccinationists have attempted to make capital of the Jersey lockjaw stories, and will no doubt continue to do so; but evidence as to the efficacy of Dr. Jenner's discovery multiplies. We have called attention to the reports from Boston and Philadelphia, which show that practically all the victims of small-pox in those cities are numbered among the persons who have not been vaccinated in the past two or three years. We have recited the experience of Germany, where vaccination is rigidly insisted upon, compared with that of countries in which there is greater laxity as to vaccination, or in which the anti-vaccinationists hold more or less sway. The reports of the Porto Rico Board of Health show some remarkable facts. There was a general vaccination completed on that island on June 30, 1899, 860,000 persons being vaccinated. In the two years succeeding that date but three deaths from small-pox have occurred. The average for the ten previous years was 621. These facts speak for themselves.

Duhring's Disease in Childhood (Gottheil). — Dermatitis herpetiformis, first described by Professor Duhring, of Philadelphia, is probably of commoner occurrence than is generally supposed, more especially in children; two cases are described by William S. Gottheil, of New York, in the June number of *Archives of Pediatrics*. The resemblance at first sight to an ordinary eczema, dermatitis, or impetigo is marked, and doubtless cases of the disease are not infrequently so classified. The points which distinguish the less common affection are: 1. The extreme obstinacy and chronicity of the malady; it being prolonged almost indefinitely by successive exacerbations or relapses. 2. Its original herpetic character and subsequent multiformity of lesion. 3. The intense pruritus. 4. Its recalcitrancy to treatment. Any apparent eczema, dermatitis, or impetigo in children presenting these features should be carefully observed; a certain number of them will undoubtedly be found to be cases of Duhring's disease.

The Association of Medical Officers of the army and navy of the Confederacy are about to hold their annual meeting as we go to press. The meeting is called to meet in the judicial room of the City Hall, in Dallas, Texas, Tuesday, April 22, 1902, at 12 M. The officers for this year are: D. D. Saunders, M.D., Memphis, Tenn., president; and Deering J. Roberts, M.D., Nashville, Tenn., secretary. To quote from the Constitution and By-Laws of this society:

"The object of said organization is to cultivate a friendly feeling among the members of the profession who served in the medical department of the army and navy of the Confederacy. Also to collect through its members all material matter pertaining to the medical service of the army and navy of the Confederacy.

"All members of the medical profession who served as surgeon, assistant surgeon, contract physician, or acting assistant surgeon, hospital steward, or chaplain, during the late war between the states, shall be eligible to membership as members, and the secretary shall be instructed to enroll their names as such when application in writing is furnished, together with a statement of the official position and rank held in the army or navy of the Confederacy by the applicant.

"All Confederate veterans who are regular doctors of medicine are eligible to membership as associate members; and all sons of Confederate veterans who are regular doctors of medicine shall be eligible to membership as junior members."

We are assured that there will be a large attendance this year and that the number of those enrolled will be sensibly increased.

Preliminary Program Medical Association of Missouri.—Forty-fifth annual session to be held at St. Joseph, Mo., May 20, 21 and 22, 1902.

First day, May 20. Morning session—10 o'clock, at Y. M. C. A. Hall, (to be devoted to addresses of welcome, general business, and to appointment of committees).

Afternoon session, 2 o'clock—C. H. Wallace, chairman, St. Joseph, Report on Progress of Gynecology. O. Beverly Campbell, Chicago, A Plea for the Conservation of the Uterus in Pelvic Inflammation. H. E. Pearse, Kansas City, The Methods of the Control of Hemorrhage, and the Removal of the Pelvic

Tumor. R. T. Sloan, chairman, Kansas City, Report of Committee on Progress of Medicine. Charles Geiger, St. Joseph, Cellulitis. William Porter, St. Louis, The Care of Tuberculosis in the Home. Synopsis: Tubercular infection vs. hereditary, its limitations, sanitation and prophylaxis; care of the tubercular, home treatment vs. climatic changes, rest, alimentation, chest exercise; anemia an indication for the saline enema, out-of-door life, heart support, specific treatment, germicides, the use of tuberculin and serum. F. H. Mathews, Liberty, Laboratory Diagnosis. T. E. Potter, St. Joseph, Tubercular Peritonitis. C. A. Mitchell, Blythedale, Senile Degeneration. Synopsis: 1st. Physical and physiological effect, showing in the assimilating organs, next functional, etc. 2d. Mental effect pertaining to self-care, etc. 3d. Moral effect relating to those who come in contact with them. C. W. Watts, Fayette, Auto-infection: Auto-phagism and Auto-intoxication. M. D. Schmalhorst, St. Louis, Dyspepsia: A Study of the Gastric Functions Essential to treatment: report of five cases. Synopsis: It is essential in all chronic cases of dyspepsia to study the function of the stomach sufficiently to make a diagnosis, It is paramount to treatment to ascertain the amount and kinds of acids present, how slow or fast the stomach is in discharging its contents through the pylorus—its capacity and position. Indications for treatment.

Evening session, 8 o'clock, at Lake Casino.—J. D. Griffith, Kansas City, President's Address. Jabez N. Jackson, chairman, Kansas City, Report of Committee on Reorganization. D. C. Gore, chairman, Marshall, Report of Special Committee on Medical Legislation.

Second day, May 21. Morning session—9:30 o'clock, at Y. M. C. A. Hall.—Bransford Lewis, St. Louis, Presentation of Ureter Cystoscopes for Male and Female. T. C. Witherspoon, St. Louis, The Causes of Appendicitis. A. H. Cordier, Kansas City, Some Clinical and Operative Phases of Appendicitis. G. Wiley Broome, St. Louis, Has Prostatectomy Come to Stay? John D. Seba, Bland, Report of a Case of Fatty Tumor, with Specimen. C. M. Nicholson, St. Louis, Removal of Tumor of the Liver, with Presentation of Patient. J. W. Perkins, Kansas City, Intero-scapulo Thoracic Amputations, with exhibition of specimen. C. J. Morrow, Kansas City, Surgical Procedures in

Stricture of the Rectum. John Punton, Kansas City, Cerebral Softening; Its Diagnosis and Treatment.

Afternoon session, 2:30 o'clock.—Carcinoma Symposium : Opened by F. J. Lutz, St. Louis, Chairman Committee on Progress of Surgery. Etiology : Roswell Park, Buffalo, N. Y., N. Senn, Chicago. Robert C. Atkinson, chairman, St. Louis, Report of Committee on Progress of Pediatrics. A. H. Ohmann-Dumesnil, St. Louis, Some Cases of Diseases of the Nails. Two of Koilonychia. Synopsis : After preliminary remarks on the etiology of diseases of the nails, the writer details two cases of Koilonychia, and then enters into a description of a successful treatment employed in each. Some other cases are then related, together with the successful treatment employed in them. The paper concludes with some general considerations upon both the etiology and proper therapeutics directed to the treatment of the conditions observed to be the respective causes of the conditions.

Third day, May 22. Morning session, 9:30 o'clock.—Report of Committee on Nominations. E. W. Schauffler, chairman, Kansas City, Report of Committee on Medical Ethics. A. W. McAlester, chairman, Columbia, Report of Committee on Medical Education. John D. Seba, Bland, Medical Education. M. A. Goldstein, chairman, St. Louis, Report of Committee on Laryngology. Hal Foster, Kansas City, The Subcutaneous Use of Paraffin in Deformed Noses. H. W. Loeb, St. Louis, Nose Bleed. M. F. Weymann, chairman, St. Joseph, Report of Committee on Ophthalmology and Otology. G. E. Bellows, Kansas City, The Pupil as an Aid in Diagnosis. J. E. Jennings, St. Louis, Eye Strain; Its Causes and Treatment. W. L. Kenney, St. Joseph, Cancer of Eyelids Treated by X-Rays. Presentation of patient. Synopsis: Section of cancer presented. Patient presented. Description of methods of treatment. Time of appearance of dermatitis. Falling of Beard: Discussion of theories regarding cure. X-Ray therapeutics in general. A portable apparatus presented. J. W. Sherer, Kansas City, The Evolution of the Eye. M. F. Weyman, St. Joseph, Demonstration of a Bandage for Eye and Mastoid Dressings.

Afternoon session, 2:30 o'clock—E. A. Donelan, St. Joseph, The Importance of Medical Examiners for Schools. Synopsis : 1st. To look after sanitation. 2d. Infectious and contagious

diseases. 3d. Overworked pupils, resulting in nervous prostration and fevers. 4th. Tuberculosis is being spread in our schools from those who have the disease. R. O. Cross, Kansas City, The State's Duty in the Matter of the Prevention of Pulmonary Tuberculosis. C. C. Hurst, Salisbury, Etiology of Disease, Germ or otherwise. Frank G. Nifong, St. Louis, The Active Principle of Quackery. Report of Committee on Necrology.

The Unrecognized Chancre (Gottheil).—The Unrecognized Chancre: In the *International Medical Magazine* for October, William S. Gottheil calls attention to the frequent insignificance and fugacity of the syphilitic initial lesion, which leads to its non-recognition in quite a large proportion of cases. Ignorance of its occurrence, and not voluntary falsification, is the cause of the frequent absence of a syphilitic history in undoubtedly specific cases. The author calls attention to the following points of diagnosis:

1. The presence of a tumor as the original lesion. In its essence, and invariably at the beginning, the chancre is a small round cell accumulation in the skin or subcutaneous tissue. Ulceration may occur, and usually does, or even phagedenism; but these are accidental, and epiphenomena, and almost invariably the specific induration is appreciable at the base of the lesion.

2. The tumor is indolent, painful and recalcitrant to treatment.

3. A peculiar and characteristic "stony" induration of the nearest lymphatic glands accompanies it, different from the general adenopathy that occurs later as a consequence of the systemic infection. Other lesions, as gummata, do not show it.

4. Chancre runs its full course in a few weeks, whilst tuberculosis takes months, and carcinoma even years, for its development.

5. The well known signs of general luetic infection, osteo-copic pain, cephalalgia, synovitis, general lymphadenitis, exanthem, etc., must be carefully and persistently searched for in every suspicious case. They may be so slight as to entirely escape careless examination.

Epilepsy.—In discussing the treatment of epilepsy, Bowman, as noted in the *Ther. Month.*, states that every effort should be made towards preventing the first paroxysm. Prophylaxis directed toward rachitis or defective nutrition may be exerted through proper feeding. Careful treatment through the acute infectious diseases, and the regulation of diet will prevent infantile convulsions. Hygienic measures can not be too strongly enforced. The patient, indeed, should live by the clock. Meat as a food should be forbidden absolutely or given in very small quantities. Keep watch on the enormous appetite of the epileptic. Forbid the use of alcohol and insist on the use of cold baths. Operations on the cortex may be considered in a certain proportion of cases of partial or traumatic epilepsy, but in no cases which have existed over two years. The bromids are relied upon for direct treatment. Strychnin is of value. Betanaphthol is recommended by him as the best intestinal antiseptic. He states, however, that salol may be advantageously used and that it has a tendency to prevent the bad effects of the bromids.
—A. M. A. J.

Scabies (Itch.)—The following is Kaposi's formula for the treatment of scabies:

R. Beta-naphthol	3ij
Cretæ prep.	3iiss
Saponis	3ij
Adipis	3vj

M. Ft. unguentum. Sig.: Apply locally at night.

—A. M. A. J.

Removal of Gunpowder Stains.—Dr. E. G. Corbett, Hampton, Fla., writes to *The Medical World* of Philadelphia, Pa., Feb., 1902, as follows: "On Christmas day a boy of twelve filled a vaselin bottle with powder and exploded the same. I arrived on the scene about three hours after the accident and found the cornea and sclerotic of both eyes and the face literally blown full of powder. I removed a dozen or more flakes of powder from each cornea with a foreign spud; also removed the powder from the sclerotic. Did the operation under a four per cent. solution of cocain. After the operation I used a fifteen per cent. solution of hydrozone in the eyes. After remov-

ing the particles of glass from the face, I kept a cloth over it saturated with a fifty per cent. solution of hydrozone. At the end of two weeks I used a saturated solution of boric acid in the eyes and painted the face twice daily with equal parts of hydrozone and glycerine. The eyes are well and powder stains have disappeared from the face."

The Curability of Syphilis.—Speaking of the curability of syphilis in the symposium upon that disease in the October number of the *International Medical Magazine*, William S. Gottheil, of New York, takes exception to the opinion of its practical incurability which is prevalent in certain quarters. Every day experience shows that the great majority of cases are cured in every practical sense, the occasional late relapses and accidents to the contrary notwithstanding. He concludes:

1. Syphilis is a curable disease, and may even, with restrictions, be called a self-limited one.
2. Whilst cure in a given case cannot be affirmed with scientific accuracy, the chances of its being the fact after a certain time under proper treatment are so great that it may be properly claimed to have been effected.
3. Practically, a patient who has been properly treated throughout the active stages of the disease and who has had no manifestations of its persistence for several years thereafter, may be regarded as cured and may be told so.

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ORIGINAL COMMUNICATIONS.

KOILONYCHIA AND ITS SUCCESSFUL TREATMENT; WITH THE REPORT OF SOME CASES.*

BY A. H. OHMANN-DUMESNIL, ST. LOUIS.

The diseases of the nails are of more than ordinary interest to him who can interpret them properly. Each one constitutes a symptom or a complex of symptoms which point to a condition at times limited to the onychial tissues, and at others indicative of a general condition of the organism of a more or less pathologic nature. Every one is acquainted with the appearance of the clawed nails in tuberculosis of the lungs, more especially when associated with the characteristic clubbed fingers. The distal phalanx is thickened, "clubbed," and bears a nail with a certain amount of curvature, and bluish, as well as accompanied by a generally unhealthy appearance. Every constitutional disease is associated with a characteristic appearance of or change in the nails, each one of which is an index of sufficient importance to lead to more thorough examination if it is to be correctly interpreted by the examiner. Whilst all this will be readily acknowledged by any one who has devoted some attention to the subject, it will also be conceded that the literature of diseases of the nails is apparently sparse, and that not much has been written upon them. In reality quite an amount has found its way in periodical literature, but scattered to such a degree and in different languages which have acted as a greater or less deterrent to him who de-

*Read before the Missouri State Medical Association, May 20, 1902.

sires to acquire a knowledge of the subject. With such difficulties to overcome it is easily understood that the general practitioner is unable to acquire even a superficial knowledge of that which should certainly be to him a most important part of his post-graduate medical education, were he but sufficiently enlightened in regard to it. His recourse to text-books on skin diseases only leads to failure and disappointment, as these appendages of the skin receive but scant courtesy.

The greater portion of the exceedingly short notices written on diseases of the nails are almost entirely confined to onychogryphosis and onychomycosis described in such a summary and perfunctory manner that but little of real worth can be extracted from them. The atrophic troubles of the nails are either omitted, so far as a consideration of them is concerned, or they are entirely omitted. In fact, the whole subject is so enshrouded in darkness that the nails would seem to have been relegated to the limbo of those subjects which constitute an *opprobrium medicinae*. Whether this is due to a certain idea that they are not deserving of more attention, or to a lack of study concerning their defects and troubles, or a self-acknowledged weakness to properly combat the diseases of nails, the writer will not undertake to determine. The fact remains, however, that there is not sufficient attention paid to these diseases in text-books and, as a natural consequence, a rather deplorable lack of knowledge respecting them. That this should exist can be easily understood when some authors have but one term for diseases of the nails, which really means nothing. It is a general one, whose meaning lacks in specificity and means nothing to him who may even be conversant with the diseases of the nails. What is referred to is the name onychia. This simply implies an affection of the nail or nails and means nothing beyond what any layman might say and does say when he applies for treatment. The meaning of the term is a very general one, and on account of this lack of specificity it is practically worthless. We will not further discuss this phase of the subject, but rather enter into a consideration of that concerning which we desire to say a few words and give some definite ideas concerning the recognition and successful treatment of a condition which is by no means rare, but which, up to this time, has not received the recognition which it deserves.

The disease concerning which I desire making a few remarks is an interesting one in several respects. It is known technically as koilonychia and ordinarily as "spoon" nails. It is by no means a rare condition, but one which, unfortunately, has attracted but little attention from those who practice general medicine from the fact that very little importance has been attached to it, and patients afflicted with the trouble have paid but very little attention to it. Outside of any medical interest attaching to it, it is of a sufficiently marked character in many cases to attract attention to it, and it becomes, after a certain time, an object of more or less solicitude to the patient. Koilonychia may be observed in one or more of the nails of the fingers of one or of both hands, although the latter is not so frequently observed as its presence in a few fingers. The appearance presented by the nails which are involved differ in different stages of the disease. It may be stated in general terms that the beginning is characterized by a flattening and thinning of the nails. This is very slow but progressive, and this very slowness makes it unperceived by the subject of the trouble until it is well marked, and it suddenly dawns upon his mind that the nails are not normal. In addition to this there is a curving of the nail from side to side, which gives the characteristic shape that has given the name of "spoon" nail. This condition has been so marked, in certain cases, as to give rise to alarm, although it merely pointed to a deeper condition which was really of a serious nature. The thinning of the nails acts as a drawback in the performance of certain work; and not alone this, but there is also considerable pain experienced in the performance of many ordinary acts, such as writing, sawing, and other work requiring a certain amount of pressure to be exerted upon the pulps or sides of the distal phalanx. The nails themselves are not normal in color, and are very apt to be fissured longitudinally through any slight trauma. Another accident to which they are liable is that of breaking transversely, and more generally at the line of juncture of the nail and nail-bed, or at that point where the nail becomes free. These are some of the symptoms which patients will observe and to which they will call particular attention. One point which requires particular attention is the dryness of the nail, which is so great in many as to amount to positive brittleness;

whereas, in others the nails are elastic and susceptible of being doubled up without producing even a crack in the surface.

A peculiarity in this disease, and it is one which occurs quite often comparatively, is the involvement of only the distal half of the nail, the proximal or attached half presenting a normal appearance. In these cases we have the added peculiarity of the extreme thinness of the free extremity of the nail and its fissuring, with the presence of V-shaped areas of small portions of the nail, the small fissure extending upwards from the apex of the V. Unna has reported a case of complete leukonychia, in which some of the nails present the appearance of koilonychia. Heller, in his monograph on the Diseases of the Nails, presents the picture of one of his cases, as well as that of one of Rille, in which the characteristic appearance of the disease is well represented. In fact, it may be stated that koilonychia is a disease which, from the paucity of the literature devoted to it, can hardly be regarded as being so rare. He who will but observe the nails on all the hands which he has occasion to examine will find that it is a comparatively common condition. With these few preliminary remarks I will now proceed to give the histories of a few cases which are typical, after which I shall proceed to a consideration of the etiology, pathology, and treatment of the trouble. But a very few cases have been chosen out of a large number observed by me in the past few years.

CASE I.—Miss X., 18 years old, applied for treatment for a condition which she considered most peculiar and which she was fearful was an indication of a very serious general condition. An examination demonstrated the fact that the nails of both hands were affected and presented a classic picture of "spoon" nails. They were unusually thin, so much so that a slight pressure upon any one caused a sinking of the nail, which persisted for about fifteen seconds and evoked a rather sharp pain. In addition to the concave condition there existed other evidences of an atrophic process. The nails of the little fingers, of the right ring-finger, of the index fingers and of the thumbs showed small circular pits or depressions a little larger than a pin-point, and shallow, narrow, longitudinal furrows which could be determined more exactly by the touch than by ordinary inspection without a glass.

The patient stated that the thinning of the nails had begun about three years previously, when she began to menstruate. The establishment of this function had acted upon the nervous system, and probably with more effect, from the fact that she was of that nervo-lymphatic temperament so often observed in blondes, of which she was one. Her nervous condition had been much aggravated by worry over her nails and the fact that all her attempts to be treated had been discouraged by those medical men to whom she had applied and who merely gave her the consolation that the matter amounted to nothing. Careful questioning brought out the fact that she was suffering from nerve starvation and, in fact, was rapidly approaching that deplorable state known as neurasthenia, led me to prescribe internally a phosphorus pill of $\frac{1}{50}$ of a grain, gradually increased to $\frac{1}{25}$, to be taken three times daily during meals. Locally she was ordered to rub into each nail thoroughly and carefully, twice daily, the following ointment:

R Stanni Oleat., (P. D. & Co.) 3j.
 Lanolini puriss,
 Ung. aquæ rosæ aa ʒss.

M.

Sig. Rub into nails twice daily.

At the end of five weeks I had the satisfaction of seeing the case practically cured. I had the patient call later when the nails had been completely renewed in growth and they were normal in every respect. They were once more well formed, showed no atrophic changes, were of normal thickness and were once more what she called strong.

CASE II.—Mrs. Y., aged 32, with one child, was sent to me with an aggravated case of syphilis, which she acquired from her husband after the birth of her child. When I saw her she was divorced and forced to earn a living as a seamstress. Her syphilis had had a very depressing effect upon her for two reasons. In the first place, she desired to keep her malady a secret, no one outside of her family physician being aware of the true nature of the case. In addition to this her being sent away from home for treatment on account of the severity of her case worried her. Her syphilis presented the lesions of a disseminated squamous syphilide attacking the entire body with the exception of the face. Both the dorsal and palmar surfaces of the hands were affected in a marked manner and this erup-

tion had proven quite refractory to the treatment administered. The nails of some of the fingers presented the typical appearance of koilonychia. The nail of the right index, the ring and little fingers offered the same changes. On the left hand, the nail of the thumb, of the middle and of the ring finger also presented this appearance. Atrophic circular depressions could be found in all of them, but no furrows that were at all marked. No particular medication was ordered for the nails beyond rubbing them with the same ointment used on the eruption. Internally, a rather radical mercurial treatment was given. As the syphilis improved the koilonychia did and this latter has disappeared, although the luetic condition is far from being completely healed. The entire result has been a most satisfactory one, the patient being particularly gratified at once more having normal nails which are strong, and free from all pain on pressure. The color, which was cyanotic, is now pink, and the improvement is plainly discernible. In fact, the nails are as nearly normal as they could be found in a syphilitic who is progressively improving.

CASE III.—Z., a young man of 26, applied to me on account of his nails, which troubled him chiefly on account of their appearance. They presented the typical appearance of the disease although not in a very marked degree. It was sufficiently so, however, to have aroused his solicitude and made him apprehensive that it possibly presaged some very serious condition. He stated that he was in charge of a rather important department of a railroad and had much work of a mental nature to do and many cares upon his mind. It could be easily seen that he was troubled in mind and restless in spirit. He did not rest easily on account of his many duties and the added trouble which he had on account of his local condition, did anything but conduce to his physical or mental well-being. He was in such a state that he was rapidly bordering on a general breakdown. All of his nails were affected, more especially the distal half of each one and his constant care in keeping his nails pared down had led to the small fissures so often observed in cases of this sort. His endeavor to prevent a further extension of the fissures by paring had led to the production of a number of triangular notches producing a saw-like condition of the nails. These were thin and their beds appeared anemic, as evidenced

by their pale bluish color. The treatment in this case consisted in both management and medicines. Strict injunctions were given not to pare or in any other way disturb the nails mechanically. In the next place, hygienic rules were given and such exercise advised as would tend to increase vigor and muscular tone. Locally was ordered the ointment to be applied to the nails as given in the history of Case I. Internally, the patient was ordered to begin with a $\frac{1}{50}$ grain phosphorus pill during meals, this being gradually increased to $\frac{1}{25}$ grain. In addition to this the following Asiatic pill was ordered to be taken after each meal :

℞ Acidi arseniosi gr. iij.
 Pulv. piperis nigris ℥iij.
 Ext. gentian q s.
 M. ft. caps. (No. 5) No. 60.
 Sig. One capsule after each meal.

Under this treatment the patient improved steadily in all respects, but the most marked change for the better took place in his nails. During all this period it was not necessary for the patient to quit his occupation or modify it in the least degree, his improvement progressing with the treatment.

CASE IV.—W., a young unmarried man of 28, came to me for the treatment of erethematous skin disease of the face. He stated that he was an accountant and was also engaged in the occupation of soliciting sales for the firm of which he was a partner. As he detailed his history, his nails attracted my attention and a closer examination showed them to be rather larger than normal so far as their width was concerned. In addition to this they were quite thin and inclined to be concave. The case was one of koilonychia, although not a very marked one. The nails did not show any tendency to fissure, and yet their thinness was quite marked. An oral examination showed that the young man was worried and his strength overtaxed, he himself remarking that his nervous system was run down. Although he presented what would be regarded as a good physical condition, his nervous organization was evidently below par. He was fidgety, restless, and presented the evidence of one who was dissatisfied with matters. Whilst he had never done any manual labor to amount to anything, he bitterly complained of the appearance of his nails. He deplored the fact that his nails no longer presented the normal appear-

ance which they formerly did, and he acknowledged that he felt very sensitive on the matter of the change in his nails. As his cutaneous trouble depended upon the same cause as the original affection a simple soothing lotion was ordered for his face and the same treatment as in Case III., for his nails. Progressive improvement took place, and his nails, whilst not yet restored to the normal, bid fair to be so at no very distant future.

Many more cases could be cited, but those given are sufficient to give an idea of the trouble, the conditions present, and of the treatment which has proven successful. The examples which have been mentioned are not selected cases, but rather a few taken at random, to illustrate some different forms of the disease. It may have been noticed that in these cases no mention has been made of the toe-nails. This has been done advisedly as in none has there been any involvement of the latter. As a matter of fact, I have found that there is no implication of these, and but a very few are mentioned by those authors who have contributed anything on the subject. So that until more are seen in this location, it would appear rather premature to make any extended remarks upon this particular phase of the subject.

An interesting question connected with the disease under consideration is its etiology. All those who have written on koilonychia, dismiss the entire matter in a very few words and have very little or nothing to say on its etiology. It will, perhaps, be better to sum up their views and then draw those conclusions which seem to be legitimate in view of the appearance, treatment, and other facts connected with cases which have been observed, including the changes which have been noted. As has already been stated, the available literature on the subject is sparse, and in no instance, has any extended consideration of the subject been made by any author.

H. Radcliffe Crocker says¹: "Spoon nails, in which the nail is thinned and concave from side to side with the edges everted, and with hollowing to a less degree, sometimes antero-posteriorly, have been observed in some wasting diseases, but also there are a few cases on record where the etiology is obscure." This will certainly appear very short and unsatisfactory to any one desirous of being informed on the etiology of this disease,

¹Diseases of the skin. Philadelphia, 1893, page 834.

and it certainly shows a certain amount of want of interest in the matter.

We are treated to more on the subject by Dr. Julius Heller² who states that in a case observed by him in a servant girl of 25, nothing was observable beyond the fact that she was chlorotic. He quotes Prof. Rille, of Innsbrück, who reported a case to him in a peasant's daughter of 35, who was anemic and in whom the disease had existed since childhood. At a meeting of the Berlin Dermatological Society, Max Joseph presented a case of koilonychia complicated by total leuconychia. He regarded the leuconychia as being due to the general anemia of the patient, although others who were present, contended that it could only be explained through the action of the subungual hyperkeratosis which was present. Heller states that in Joseph's case it existed only in the most slight degree and was completely absent in his case.

Prof. A. Jarisch³, after quoting Heller and a few other authors in which he rejects Unna's theory, because it might appear plausible were the same conditions always observed and in every case, concludes that a definite and conclusive explanation cannot be given until microscopic examinations of a satisfactory nature are made, in which opinion a number of authors share.

Joseph Zeisler⁴ in speaking of furrows in nails and their causation by systemic diseases says: "More rarely observed, yet somewhat related to the foregoing, is an anomaly consisting in a sort of excavation or central depression of the nail plate, due in all probability to a process of shrinking in the nail bed. This condition has been described by Crocker as spoon nails, and elsewhere as koilonychia."

From the opinions which have been quoted above there can remain no doubt that the subject of the etiology of koilonychia is involved in a great deal of obscurity. Any one who will examine into the histories of the cases observed and of those detailed by writers cannot fail to notice that one underlying fact is apparent in all, and this points to the inevitable conclusion that the disease before us is a trophoneurosis manifested by an atrophy of the nail plate as well as of the nail bed.

²Die Krankheiten der Nägel. Berlin, 1900, page 134.

³Die Hautkrankheiten. Vienna, 1901, page 1032.

⁴Trophic Affections of the Nails. Jour. Cut. and Genito-Urin. Diseases. 1901, page 511.

The coincident presence of leuconychia is merely confirmatory of the cause, and the general state of the organism in the patients is of such a form as would encourage neuratrophic changes in the different anatomical parts of the skin as well as in its appendages. We are here brought face to face with a condition which has factors which make the entire matter a most puzzling one and correspondingly difficult of solution. Whilst we may understand that all the nails of the hands are not affected it is rather difficult to explain the fact that the toe-nails are exempt from the process. These questions are still sub judice; but there can be no doubt that confirmatory proof of the fact that koilonychia is a trophoneurosis is furnished by the success which attends a treatment directed to an amelioration of the nutrition and general toning up of the nerves, more especially the sympathetic system, which is generally understood as being instrumental in bringing about trophic changes. The whole subject is a most interesting one, and worthy of serious study at the hands of sound investigators. If an interest is awakened in this nail disease we have no doubt that there will be many who will devote time to its further elucidation.

Equally as unknown and of as much interest is the pathology of this trouble. Whilst post-mortem examinations will show some changes, any thorough pathologic examination will have to depend upon the examination of biopsic specimens. There is no doubt that there exists a shrinkage (*schrumpfung*) of the nail bed, and this, by diminishing the nutrition of the nail, brings about a consequent atrophy. The nail itself becomes thin and its attachment to its bed weaker and weaker, leading gradually to a curving of the sides which are not so tightly attached. Hence the development of the concavity which is observed. This question of pathology is one which requires a great deal of research, and it is only a lack of material which has prevented examination of a satisfactory nature. No one will consent to sacrifice a distal phalanx for this purpose, and in no other way can satisfaction be obtained.

What is perhaps of more interest to the practitioner is the successful treatment of the condition. It may be well to premise that the nails are very slow to respond to any therapeutic measures, as they are endowed with no sensation and

derive all their nourishment from the nail bed, there being no circulation in the nail itself. It is by a slow process of absorption that nutrition is established, this determining the reason for such marked changes following a slight disturbance of circulation such as will follow a failure in the trophic nerves in affording the normal stimulation necessary to establish a proper circulation. It will also serve to explain the fact that quite some amount of time is necessary to obtain any result; and the reason why females are benefited more than males is that the former are more patient as well as persistent in carrying out a treatment. In order to obtain permanent good results a long period of time is often necessary, but such result can be attained. It should always be impressed upon patients that this is a *conditio sine qua non*, and those who are not ready to stand a long siege might as well not undertake the cure of koilonychia. We have seen patients who refused a long course of treatment come back for dehiscence of the nails and cheerfully submit for any length of time. It is well to tell of the possibility of this and warn them of it. In those cases in which the cause is Raynaud's disease too much must not be promised. It is pretty well established that the cause of symmetrical asphyxia of the extremities is trophoneurotic in nature, and unless the course of the process can be arrested little hope can be offered for a complete cure of either one or the other of the diseases. So that much depends upon the proper selection of a case. That is to say, a patient who will not be willing to carry out the treatment for a long time had better not be encouraged to begin with it, as he will be doomed to disappointment and his physician to failure.

This is not the only point to observe. Much care should be exercised in the proper choice of remedies as well as the methods to be used in their application. As in all questions of therapeutics, no haphazard or guesswork can be indulged in or continual changes made. For the purposes of local medication, I have found the diluted oleate of tin to be the best. It is a true nail tonic, and it is a consistent one. Some German writers have used the oxide of tin, but they have not reported particularly brilliant results from its use. In fact, the oleate of tin must be very properly made or it will fail of its purpose, and I desire to say that the make of Parke, Davis & Co., of

Detroit, is that which has best served my purpose in all cases. The method of application should be with a nail polisher, as this will insure its penetration into the nail substance. But little of the ointment need be placed upon the nail before it is rubbed in, but it must be very thoroughly applied. So far as the general treatment to be followed in koilonychia, as much or even more care must be exercised in the choice of the remedies used. The remote cause of the tropho-neurosis must be determined and the treatment directed to that. Thus, in Case II., reported in this paper, the cause was syphilis and the treatment was directed exclusively to that, although it would have completely failed in a non-luetic patient. Of course, it is necessary that the physician possess a good knowledge of general medicine and of the remedies particularly adapted to the neurotic conditions observed in the patient under treatment. This it is which perhaps makes the treatment of nail diseases so difficult and demands so much more at the hands of the medical practitioner. Too many of the latter class look upon affections of this nature as of very secondary importance, when really the whole fault lies in their unwillingness to acknowledge their inability to successfully treat a case. The very paucity of monographs and articles on diseases of the nails is evidence of the fact that little attention is paid to them and a corresponding lack of knowledge in regard to them exists. Koilonychia in particular is worthy of extended study at the hands of medical men, as it is a trouble which is rich in its indications of general neurotic trouble in some cases. So little has been written upon it and so few cases have been thoroughly examined that a most fertile field is opened to those who will devote time to its further study. The pathology of the disease is still unworked, and a thorough study of this particular portion is certainly destined to yield rich and useful results.

It must not be forgotten that this particular deformity of the nails, like all others, forms a most useful indication to various systemic troubles and is worthy of more consideration than has been heretofore accorded to it. Those books which speak of it, incomplete as the subject matter devoted to it may be, are deserving of serious study on account of the suggestions which are made and which would lead to a further development of the matter. A closer study of the disease will inevitably lead to

suggestions of treatment for many cases which are looked upon as incurable and some real progress as well as useful information on a large class of obscure diseases will be made. One need not specialize his practice to do this, and a thorough consideration of the various points involved will, beyond all doubt, benefit the medical profession by affording to it something real and useful as well as tangible.

A Foreign View of American Methods.—Not many years ago it caused no special surprise to hear from our English cousins' lips that they supposed Indians were common denizens of our city streets, and that gold was to be had for the asking. We had supposed, however, that all this was in the past, and that we were now regarded as quite up to the average in civilization and common sense. It was, therefore, with a certain shock that we read the following apparently serious statement in a recent number of our much esteemed contemporary, *The Medical Press*:

"The inhabitants of Plymouth, U. S. A., have been having a lively time of it of late in consequence of a campaign undertaken by the Board of Health for the extermination of stray dogs and cats, which are suspected to be the means of disseminating smallpox and other infectious diseases. In the abstract the campaign must command approbation, but for parties of volunteers to march through the town armed with shot-guns for the purpose of destroying stray animals is a proceeding which has its drawbacks, in that the wandering and homeless animals were not the only recipients of the leaden shower, sundry wandering inhabitants having received a share, as well as some who merely looked out to see what was going on."

Of course, this may all be true, but it appears a little remarkable that news of it should not yet have reached us except via England. We are not responsible for what may be done in Plymouth, or for what conception of its duties the Plymouth Board of Health may have, but we confess to a rising sense of the humor of the situation, when we contemplate the "leaden showers" and the "wandering inhabitants" and onlookers who apparently stood around calmly waiting to be shot. We believe most fully in the extermination of infectious diseases by any legitimate means, but the shooting of harmless inhabitants is too drastic a remedy even for us to look upon with complacency. We trust the facts have been misinterpreted in their long passage across the water.—*Boston M. & S. Journal*.

A NOTE ON THE TREATMENT OF DIPHTHERIA.*

BY JOHN M. SWAN, M.D., PHILADELPHIA, PA.

In 1898 I read a report of "Five Cases of Diphtheria" before this Society (Proceedings Philadelphia County Medical Society, 1898, vol. xix., p. 187), and I now wish to supplement this report by recording my experiences in two house epidemics of diphtheria.

The House of the Holy Child is a home for colored children, in which, on September 25, 1900, there were 32 people, children and adults. On that day I found one of the children, a girl aged six years, suffering from sore throat. I immediately, as is my custom in all cases of sore throat, made an inoculation and sent the tube to the Bacteriological Laboratory of the Board of Health. The next day, September 26, I received a report from the laboratory that the culture contained diphtheria bacilli. On September 27 I made cultures from all the other people in the house, and on the 28th I received a report that three of the cultures were positive and two were doubtful. On the same evening one of the children in whom the culture was positive was taken sick and had membrane in the throat. The other two children had no membrane at any time and, on second culture, the two doubtful cases were found to be free from the bacillus of diphtheria.

In the meantime the child who was first taken sick received 2,000 units of the Board of Health antidiphtheritic serum. As soon as the second child presented membrane she was given a similar dose of antidiphtheritic serum. The children who gave positive cultures without symptoms, as well as the two children in whom the cultures were reported doubtful, received 500 units of antidiphtheritic serum each.

The two children who presented membrane were isolated in one room, while the two children in whom there were doubtful cultures and the two in whom there were positive cultures were isolated in a second room. The membrane disappeared from the throat of the first child taken sick in four days, and from the throat of the second child in three days. As soon as the membrane had disappeared from the throats of the patients I began to apply a 60 grain to the ounce solution of silver nitrate

*Read before the Philadelphia County Medical Society, Oct. 9, 1901.

to the tonsils and pharynx. The solution was applied after taking an inoculation; in 24 hours a second inoculation was made and the silver solution again applied. This system was continued until a negative culture was obtained, and then the child was bathed and allowed to return to those who had not been infected. All cultures were free by bacteriological examination on October 15th, 20 days after the first case developed.

Out of these 32 people, therefore, I had two cases of clinical diphtheria, two cases of bacteriological diphtheria, and two doubtful cases. The two doubtful cases proved not to be diphtheria and the two bacteriological cases never became clinical cases. Furthermore, although the well children were retained in the home, being isolated, of course, from those sick or suspected, no case of diphtheria developed among them.

I believe that, owing to the fact that I made bacteriological examinations of all the inmates of the home and isolated at once all those who had bacilli in their throats, I was spared the spread of an epidemic of diphtheria among a class of children who have not the best resisting power. If I had merely isolated the first child who was taken sick, and not made a systematic investigation of all the throats in the home, I should, probably, have had a succession of cases of diphtheria developing in the home all winter.

The child first taken ill attended one of the public schools of the city, and, I believe, contracted her sore throat from some child who had a very mild attack of diphtheria which had been diagnosed tonsillitis, without bacteriological examination, and who was allowed to return to school with virulent bacilli in his throat.

In an article that appeared in the *Edinburgh Medical Journal*, June, 1900, ("Has Antitoxin Reduced the Death-rate from Diphtheria in Our Large Towns?"), Louis Cobbett advances the opinion that cases of diphtheria are propagated by mouth-to-mouth contact, and not through bad drains and unsanitary surroundings. In this way a child with diphtheria bacilli in his throat while playing at recess may laugh, shout, or cough in the face of some playmate, and thus spread the disease. Such a child may be a powerful factor in starting an epidemic, and each child that becomes infected may further spread the disease before he becomes ill enough to be kept home from school.

It would be an ideal state of affairs if it were possible for a school physician, as soon as he learns of a case of diphtheria in one of the children who attend the school of which he has charge, to make a culture from the throat of every child attending that school. Then every individual who has bacteriological diphtheria could be excluded from the school until such time as his throat is free from the risk of transmitting the disease to his playmates. In this way epidemics of such severity that necessitates the closure of schools could be avoided.

In a second house-epidemic in which I had the management of the disease, an adult member of the family went to the northern part of the city to visit relatives. While away from home she had a sore throat. In a few days she was allowed to return home, where there were three young children. No bacteriological examination of the throat had been made, because the symptoms and clinical appearance were those of tonsillitis. In a few days after the return of this member of the family, one of the children, a girl, aged seven years, was taken sick with sore throat. Bacteriological examination of her throat as well as of the throats of the other children and the adults, including the aunt who had been away on a visit, showed diphtheria bacilli in all but one. Treatment with antidiphtheritic serum and nitrate of silver locally resulted in cure in 10 days. Of these cases two were bacteriological and three clinical.

In order that the applications of silver nitrate may produce the best results it is necessary that they should be made very thoroughly, and that they should not be begun until after the membrane has entirely disappeared. I have never seen ill effects from the use of such a strong solution, although in one of the cases at the home I was obliged to use the solution every day for 15 days before the cultures became sterile.

DISCUSSION.

Dr. W. G. B. Harland asked if Dr. Swan used the silver nitrate in the nose as well as in the throat.

Dr. A. Bern Hirsh asked what parts of the throat were reached by the silver nitrate; whether the tonsils were treated by the solution.

Dr. J. M. Swan, in closing the discussion, said that he had told Dr. Harland about the epidemic at the House of the Holy Child. It required twenty days to get a negative bacteriological

report, because one of the children, the first one taken sick, had nasal complications, and, although perfectly well, presented slight nasal discharge. Every time he had sent a culture to the laboratory he had received a positive report. He first used a weak carbolic solution in the nose; later, a weak bichloride solution; and, finally, the 60 grain silver nitrate solution. He realized, at the time, that there was considerable risk attached to this procedure, but, fortunately, there had been no evil results. He had applied this solution to the nose by means of a swab, and after having used it four times the cultures were negative. In making the application to the throat, the child's mouth is held wide open, and all visible parts of the pharynx are swabbed with the solution. He uses care not to have an excessive amount of the solution on the swab. Edema has never occurred. After swabbing there would sometimes be a slight cough, lasting three or four minutes, which would be relieved by drinking water. When Dr. Swan was first told of the silver nitrate solution, he thought that it would be a very heroic measure. He had been told, however, that it had never given trouble, and he himself had had no unfavorable results from its use.

Dr. Hirsh said he was interested to hear a scientific explanation of the plan of using strong silver nitrate solution, because in his memory it had been used long before bacteriological tests.

Cystitis.—Dr. B. Foster, in *St. Paul Med. Jour.*, states that, in the treatment of cystitis, when the urine is acid in reaction, the following preparation containing liquor potassæ is the most useful:

℞ Liquoris Potassæ.....℥ij.
Mucilaginis acaciæ.....℥j.
Tinct. hyoscyami q. s. ad.....℥iv.
M. Sig.: One teaspoonful every four hours in water.

If the urine is already alkaline, and particularly if it has undergone ammoniacal decomposition, urinary antiseptics are indicated, such as salol, boric acid, sodium benzoate or urotropin.

THE TREATMENT OF CHRONIC VESICAL CATARRH.

BY CHARLES W. MCINTYRE, M.D., NEW ALBANY, IND.

Chronic vesical catarrh is usually the continuation of the acute inflammation of the bladder. A form of mild inflammation of the bladder, however, develops without the symptoms of the acute disease in some instances—as from the pressure of the gravid uterus, pelvic tumors, and in those patients who have the uric acid diathesis. In these cases the cystitis develops gradually and is characterized by an excessive irritability of the bladder and more or less pain and heaviness in the pelvic region.

In chronic vesical catarrh the fibrous and muscular layers and the mucosa are hypertrophied and the cavity of the bladder is diminished and the necessity for frequent micturition is increased. The rugæ are prominent and often become polypoid, while deposits of phosphatic salts deposit in ulcerated spots and prove a source of irritation which engenders much distress.

In some diphtheritic forms, the entire mucous membrane is covered with fibrinous material which is thrown off in shreds or as a cast. When our patient begins treatment it is the wise course to tell him that success or failure will depend to a measurable extent upon him. If he pays no attention to diet, and should use alcoholic or malt liquors, he can rest assured that results will be negative. A temperate and sober life, together with sincere co-operation on the part of our patient, make our chances good.

Not only must all alcoholic liquors be avoided, but our patient must eat nourishing but unstimulating food.

The bowels should not be allowed to become constipated. In cases where constipation becomes a factor it should be relieved by saline cathartics.

Washing out the bladder is resorted to by many practitioners, but it is of value, I believe, only in selected cases. In chronic vesical catarrh following gonorrhea it may occasionally prove beneficial. In such cases a 50 per cent. solution of boracic acid, or a mild bichloride solution.

I, however, very rarely resort to irrigation of the bladder, but, as already said, this may occasionally be employed with benefit.

In the treatment of chronic vesical catarrh I have found firwein (Tilden's) of decided benefit.

This agent is a balsam of fir wine with the active constituents of iodine, bromine and phosphorus combined in a palatable solution. Firwein (Tilden's) I give in doses of a teaspoonful every three to six hours as occasion may seem to demand. If there is much irritability of the bladder I often give a teaspoonful every two hours until this is allayed—after this it can be employed every four to six hours as may be deemed advisable.

I have found firwein (Tilden's) to give me prompt and satisfactory results, and I have treated a number of cases with the most brilliant results.

In some cases we shall find it necessary to give some other remedy to meet certain indications—and one's judgment must of course be depended upon to suggest the correct remedy.

Mrs. S. W. M., age 39, had been infected with gonorrhea six months before she came under my care. I did not treat her for the attack of gonorrhea. She now had a bladder which was so irritable that she could not retain more than an ounce of urine.

She had pain in the pelvic region, felt discouraged, and declared that her bladder gave her such great distress that she found life a veritable burden.

I had this woman leave off her customary allowance of beer, and live on a diet that was unstimulating and bland.

She began with a teaspoonful of firwein (Tilden's) every six hours. This helped her some, but did not do her as much good as I thought it ought and I had her take the remedy in doses of a teaspoonful every three hours.

The next day I found her better and she was able to retain her urine four hours and the pain and other symptoms had diminished greatly. She continued to take the remedy this way for a week and was so greatly improved that I had her to take the agent every six hours. She continued to improve on this remedy and was discharged cured three weeks from the beginning of the treatment.

Mr. N. A. P., age 24. This young man had had a protracted case of gonorrhea and subacute cystitis attended with a very irritable bladder, was now present, and this gave great distress and entirely incapacitated him from attending to business as he could retain his urine but a short while. On regular doses of

firwein (Tilden's) a teaspoonful every three hours—he made a prompt and entire recovery in three weeks.

Mr. S. J., age 51. This man had chronic vesical catarrh following in the train of the uric acid diathesis. His bladder was irritable at times, and so violent were the paroxysms of pain and the desire to micturate that he often had to void his urine before he could reach a privy.

This man's diet was changed and he was put on firwein (Tilden's) in doses of a teaspoonful every four hours and he made a complete and satisfactory recovery.

A patient—a woman—who had chronic vesical catarrh attended with severe irritability of the bladder, that was due to the use of the catheter. She made a prompt recovery on firwein (Tilden's). It was given in doses of a teaspoonful every three hours.

A man aged sixty with chronic vesical catarrh following upon an acute attack was treated with firwein (Tilden's) in doses of a teaspoonful and was promptly relieved and has had no recurrence of the disease.

Mississippi Valley Medical Association.—The chairman of the Committee of Arrangements for the twenty-eighth annual meeting of the Mississippi Valley Medical Association, Dr. A. H. Cordier, has announced the dates of the next meeting in Kansas City, Mo., as October 15, 16, 17, 1902.

The president, Dr. S. P. Collings, of Hot Springs, Ark., has announced the orators for the meeting, Dr. C. B. Parker, of Cleveland, O., to deliver the address in Surgery and Dr. Hugh T. Patrick, of Chicago, the address in Medicine, selections which will meet with the approval of every physician in the Mississippi Valley.

A cordial invitation is extended to every physician in the United States but especially of the valley to attend this meeting and take part in its proceedings. Titles of papers should be sent to the secretary, Dr. Henry Enos Tuley, 111 W. Kentucky Street, Louisville, Ky., at as early a date as possible to obtain a favorable place on the program.

TWO CASES OF TYPHOID FEVER COMPLICATED BY NOMA.*

BY JOSEPH SAILER, M.D., PHILADELPHIA, PA.

The following cases were observed at the University Hospital¹ in the service of Professor Musser, during the past summer, and are interesting on account of the occurrence of noma following typhoid fever—a rare sequel—and the possibility of determining the etiology of the process:

CASE I.—A boy, aged fourteen years, a rag-picker, one of twelve children, two of whom had died of pneumonia, was admitted to the hospital suffering from typhoid fever. There was a history of diphtheria one year before, and chronic cough and expectoration since that time. The symptoms of typhoid fever were characteristic; the Widal and diazo reactions were both present; there was a roseolar eruption and a persistent high fever. The sputum contained streptococci and staphylococci and a thread-like bacillus. On the sixteenth day of the disease it was observed that his right jaw was swollen and that the right upper molar had become loosened; there was also some ulceration of the mucous membrane of the cheek and gum. The following day three of the molars became loose and were removed, and a diagnosis of gangrenous stomatitis was made. On the eighteenth day of the disease a reddish spot appeared on the cheek, just below the right corner of the lip: this became purple, and there was ulceration of the interior of the mouth. On the twenty-first day a report from the Pepper Laboratory, to which cultures from the mouth had been sent, stated that diphtheria bacilli were present. The patient was immediately isolated and received 4000 units of antidiphtheritic serum. This and a subsequent injection of the same amount two days later produced temporary improvement, but the patient gradually grew worse, and died on the twenty-seventh day of the disease, fifteen days after the first appearance of ulceration of the mouth. Cultures made a second time again showed the presence of the diphtheria bacilli.

CASE II.—A girl, aged eight years, sister to Case I., was admitted to the hospital on July 8th, suffering from a typical attack of typhoid fever. The Widal reaction was positive, there

*Read before the Philadelphia County Medical Society, Oct. 23, 1901.

was a characteristic eruption of rose-spots, and the leucocytes were not increased. On the sixteenth day of the disease she complained of so much soreness in the mouth that it was necessary to feed her through a tube. By the twenty-seventh day, however, this had improved, and she was able to take milk by the mouth. At this time there was necrosis of the upper jaw, and the canine tooth on that side was loosened. On the twenty-ninth day of the disease, thirteen days after the first appearance of the symptoms in the mouth, a culture was taken from the necrosed area, which was found to contain diphtheria bacilli. Antidiphtheritic serum was immediately given, and on a subsequent occasion a culture was taken from the mouth, and from a discharge in the right ear, and from the alveolar cavity after the removal of a tooth, and in all cases diphtheria bacilli were found. The patient finally recovered, and cultures from the mouth proving negative she was discharged.

A brother of these two patients was also in the hospital at this time suffering from typhoid fever, but he did not develop necrosis of the jaw, and unfortunately cultures were not made from the mouth.

Noma appears to be a rather unusual complication of typhoid fever, and these cases are interesting on that account. Freymuth and Petruschky¹ have reported two cases, one of noma of the vulva following measles, and one of noma of the cheek following typhoid fever. In both cases diphtheria bacilli were found in the lesion, and both recovered under treatment with antitoxin. Petruschky states that the bacilli obtained from these lesions showed a very mild degree of virulence. Passini and Lenier² refer to a case occurring in a boy of eight, who was brought to the hospital with typical noma, and cultures from it showed the presence of diphtheria bacilli. The predisposing condition was tuberculosis. Walsh³ found the diphtheria bacillus in all of eight cases of noma that he examined. Nicolaysin⁴ has found a non-pathogenic bacillus resembling the diphtheria bacillus in two cases of noma.

¹Deut. Med. Woch., 1898, p. 232.

²Wien. klin. Woch., 1899, p. 743.

³Proceedings of the pathological Society of Philadelphia, June, 1901, p. 479.

⁴Quoted by Klautsch, Archiv für Kinderheilkunde, 1899, vol 26, p. 245.

It appears as if the diphtheria bacilli had remained latent in the throat of my first case for a year, and then, when his general condition was weakened by an attack of typhoid fever, still retained sufficient virulence to cause gangrene. The second patient either received the micro-organisms from her brother, or herself had suffered from diphtheria in such a mild form as not to attract attention from her parents.

It is important, therefore, in all cases of infectious disease with sore throat to make cultures of the mouth, and also in all cases of infectious disease that give a history of comparatively recent diphtheria.

I desire to express my thanks to Professor J. P. Crozer Griffith for his kindness in permitting me to report the second case.

Ichthargan in Gonorrhea.—It is a fact which has now received very general recognition that acute gonorrhea, or rather the acute stage of a gonorrheal attack, is a condition well within the control of the practitioner. If he treat it steadily by one of the modern methods of irrigation, he need not fear that it will not gradually but surely subside. The effort to expedite recovery, to minimize suffering, and to lessen the danger of complications, has led to the trial of many new remedies, most of which are as willingly discarded. Ichthargan, according to Taenzer, of Bremen (*Monatshefte f. Prakt. Dermat.*, April 1, 1902), is a drug which has come to stay. In one case he had tried Janet irrigations daily for two weeks without avail, while after three irrigations with ichthargan the urine cleared up completely. His general method in the treatment of gonorrhea is at present as follows: With fresh infections he is accustomed to put the patient upon the usual dietary and hygienic regulations, and to prescribe internally only ichthargan, in a solution of 5 centigrams to 200 cubic centimeters of water, of which a dessertspoonful is taken every three hours. The urine becomes clear within from eight to ten days, even in the most severe forms of the disease, and the use of the drug in irrigations is now begun. A one per cent solution is injected daily into the anterior urethra. In chronic gonorrhea he makes use of the same preparation.—*Medical News.*

CASE OF EXFOLIATIVE DERMATITIS DUE TO QUININE.*

BY E. W. REISINGER, M.D., WASHINGTON, D. C.

December 27, 1901, Mrs. C. called at my office and requested something for her husband, "who had the grippe." I inquired into his symptoms and "agreed" in the diagnosis, so prescribed six tablets, each containing acetanilid 92.i, salol 92. $\frac{1}{2}$, quin. bisulph. 92.i, to take one tablet every three hours.

Twelve hours later, December 28, I was called to see Mr. C., and obtained the following history:

Mr. C., white, age 45, Pullman conductor, took as directed the prescription I had sent him; two hours after ingestion of the second tablet (two grains of quinine altogether) the skin of his entire body began to itch, became red and swollen and had a drawn feeling. He suffered so much from the *intense* pruritus that he was greatly depressed, in fact, spoke of ending his life, and was unable to sleep or even remain in bed. Desquamation had set in when I saw him, his head and body being covered with fine scales, but his hands and feet were still red and swollen and had a dry, glossy appearance. He complained greatly of the "drawn" feeling over his entire body, as if his skin was too tight for him, as in fact it was. I diagnosed his case as "erythema due to quinine"—gave a cooling lotion internally, a carbolic acid wash for the itching, and stopped the tablets. Two days later his hands and feet shed their epidermis, and I secured a specimen which is a perfect "palmar surface of the left hand;" his right hand and both feet lost their cuticle in large casts, but not nearly so perfect. It took him at least a week to entirely recover, as his feet and hands were very tender after the desquamation.

Looking over the literature on this subject, I was struck by the smallness of the dose of quinine in similar poisonings and the few adult male cases reported. For instance, Dr. H. C. Wood, in his *Therapeutics*, says "a few grains of quinine" will produce erythema, etc.; he does not mention an adult case or one of exfoliation. Dr. B. D. Tillow (*N. Y. Med. Record*, 1898) reports violent erythema in a woman from one-third of a

*Reported, with specimen, to the Medical Society of the District of Columbia, January 22, 1902.

grain, but dermatitis was not followed by desquamation. Dr. T. C. Johnson (*Jour. Cutan. and Genito-Urinary Dis.*, 1896) reports a case of a man who had two attacks, the first due to four grains of quinine and the second due to two 15-drop doses of compound tincture of cinchona—*i. e.*, about 3-20 of a grain of quinine. Dr. Morrow (*N. Y. Med. Jour.*, 1880) reports sixty cases of "quinine poisoning." He also found that small doses caused the erythema, but all his cases, except one, were either children or women, the exception being a man, who did not exfoliate.

I would especially call attention to the following points in this case: The age and sex, the completeness of the exfoliation, the severe mental symptoms, the intensity of the pruritus, and, lastly, the small dose. I should advise a constant inquiry for such idiosyncrasies, as the poisoning is as liable to occur from small as from large quantities of the drug, and I wish to recommend a weak solution of carbolic acid for the itching, as it was most effective.

DISCUSSION.

Dr. McLaughlin said the specimen was interesting and instructive. Quinine is so universally used that it is wise to call attention to the untoward effects which occasionally follow. In this case the type of disease was erythematous, but vesicles, wheals, bullæ, and other skin manifestations were sometimes seen. Several theories have been advanced to explain the development of these rashes. Quinine, by its irritating effect upon the gastric mucous membrane, stimulates the sensory nerves, and by reflex action produces a dilatation of the cutaneous vessels. Again, as quinine is eliminated by the sweat glands, a local irritation through these channels is excited.

Untoward effects were frequently exhibited by workers in quinine, and the eruption has followed the local application of hair tonics containing the drug. The effect was due to an idiosyncrasy, as from the use of opium, mercury and other drugs.

About ten years ago he had reported a case in which a rapid exfoliation of the skin followed the ingestion of a drachm of compound tincture of cinchona. Several similar cases had recently been reported in a medical periodical. The physician

should always bear in mind the possibility of idiosyncrasy, and he should make inquiries before prescribing quinine, opium, arsenic and other drugs which were known to produce such peculiar effects in some individuals. Morrow has called attention to the possibility of some eruptive fevers, supposed to have occurred a second time, having been due, perhaps, to this drug.

Dr. Magruder said that the specimen was instructive because it directed attention to the evil effects which follow the administration of quinine in some cases. The physician should be on the alert for idiosyncrasy. Here, the patient not only lost time from his work, but the results were very serious. Dr. Magruder had more than once avoided making an awkward mistake by questioning the patient indirectly in order to ascertain whether an idiosyncrasy existed. In one case the ingestion of two doses of two grains each of a salt of cinchona had been followed in two hours by a marked general edema which lasted for several days. Later in the same year he forgot the incident and ordered the drug for the same patient a second time with similar results; in addition there was intense itching but no desquamation.

Dr. T. C. Smith said that Dr. Erbach had reported a case of exfoliative dermatitis, some years ago, somewhat similar to Dr. Reisinger's, which was thought to have been due to scarlet fever. He inquired whether it might not have been due to the ingestion of quinine.

Dr. J. Dudley Morgan also asked whether this erythematous rash might not be mistaken for scarlet fever. It was very important that no mistake in diagnosis be made.

Lupus Erythematosus.—G. H. Fox, in the *Ther. Monthly*, recommends, where the patches are dry and scaly, an ointment or plaster of salicylic acid, gradually increased in strength until the inflammatory reaction is as great as the patient will tolerate. The following formula is recommended for local application:

℞ Acidi salicylici gr. x.
Acidi pyrogallici gr. xx.
Vaselini ʒiij.
M. Sig.: Apply locally once or twice daily.

CORRESPONDENCE.

CONTAGIOUSNESS OF LEPROSY.

There are different opinions put forth, says Dr. Manuel F. Alfonso, director administrator of the Hospital San Lazaro, Havana, Cuba (Report 1901), regarding the contagiousity of leprosy. By some it is believed that contagion realizes itself by means of the nasal secretions, the nose being the port of entrance of this disease. Among those holding this opinion we find the illustrious leprologist Strauss. By others the bacillis of Hansen does not make its entry through the nose.

Prof. Espador, of Yucatan, believes one of the most powerful causes of contagion to be contact with the underclothing of lepers. And as there is so great a diversity of appearances, no one has been able in a clear and precise way to prove the truth and reason of their being of their theory. Observations made in the laboratory of the Hospital of San Lazaro, by our well-known leprologist, Dr. Francisco de Vildosola, and which are confirmed by the works of Prof. Ducrey (*Giorn. Ital. delle Mal. Ven.*, 1892) demonstrate that the bacillis of Hansen can be easily cultivated in sweetened or glycerinated gelatine, and even a normal broth for cultivation that always the cultures nourish themselves in a vacuum or in an atmosphere of carbonic acid or nitrogen, and that in such circumstances colonies develop in 48 or 50 hours; that they preserve their vitality largely, and even for more than a year when there is a deficiency of contact with the air. In oxygenated ventilation, on the other hand, they lose rapidly these qualities.

This makes us believe that the bacillis of Hansen loses its virulence, so far as regards its reproduction, by its loss of contact with oxygen with the air, a theory which explains the conditions belonging to the Hospital of San Lazaro, offering since its foundation not a single case of contagiousness, and which has forced the distinguished professors who, during two centuries, have presented their services to said asylum, to be anti-contagionists. At a time when marriages of lepers were permitted on this island, it was not possible to observe a single case of a child born of these matrimonies that had inherited the disease.

Dr. Araujo, in his "Memoria de la Hospital San Lazaro, de la Habana," has cited, 1890, the case of two children born in the hospital, of leprosy fathers. They had remained there more than twelve years. One staid fourteen years and the other eighteen. In that time, no suspicious sign of the disease had appeared. One of these had had successors. She was a woman, and not one of her children presented symptoms of the affection. What we cared to observe in the Hospital of San Lazaro was that those who lived in an aerated medium showed no particular result in the clientele. In China where leprosy is hereditary they permit matrimonies of the third generation, or those in whom the disease has nearly extinguished itself.

Dr. Patron, who lived in a country eminently leprous, in his work, "Some Considerations on Leprosy," tells us that he does not know a case of a recently born leper, nor contagion by maternal lactation.

In a district of this city, Cerro, some years ago, there existed a family in which the mother, who was leprous, brought forth a boy that had all the characteristic symptoms of leprosy, and who, since the death of the mother, had a boy 10 years of age; entering the hospital 23rd of April, 1887, dying 30th of March, 1897. The same woman brought forth a daughter without manifestations of leprosy, but after fifteen years she presented all the characteristic symptoms of the disease, dying in the asylum 15th of April, 1899. Both children had remained from entry to their deaths, a period of ten years, in the hospital.

From this exposé we deduce that contagion of leprosy can be intra-uterine in spite of the refractoriness which infants have for the disease, and it shows also the greater virulence of the bacilli of Hansen, which circulate in the deep lymphatics far from contact with the air.

I should like to be more exact on this question of contagion. Perhaps an hereditary individual may touch the external clothing, or a portion of the body of a leper, in direct contact with the air, without contagion resulting. But it is probable that contagion will realize itself, if contact is had with the covered parts of the leper's body, or by using his clothes, not sufficiently ventilated. This would explain the immunity for two centuries from the patients of employés and assistants of the Hospital of San Lazaro, and the contagiousness among the civil clientèle so evident in the last century in our neighboring Republic of Colombia.

ALBERT S. ASHMEAD, M.D.

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EDITORIAL.

THE AMERICAN MEDICAL PROFESSOR.

The professor in an American medical college is a very curious result of our very lax legal as well as medical methods. What we intend to say is in no wise meant to attach to every institution where students are taught medicine and all its branches, but will be found applicable to more than three-fourths of those empowered to confer the diploma of Doctor Medicine. Let us consider the manner in which such an institution originates. As to the manner in which it is conducted, we leave that to those who have seen it and had experience, both active and in a purely spectatorial point of view. Some physician who does not think that he is sufficiently advertised and who wishes to make himself more widely known, in a purely ethical sort of a way, interviews a number of his medical friends who also desire to see their names more prominently placed than on their signs. The result of these several inter-

views is an informal meeting of a few, presided over by the *deus ex machina*. It is at this interview that the pot is set boiling. A number of such gatherings must be held in order that a plan may be developed that will be satisfactory to all. It is at these also that the officers are chosen and everything satisfactorily arranged. This much being done, a number of prominent and capable physicians are discussed, and an agreement being reached they are invited to participate in a meeting. It is at this meeting that they are asked to join the original projectors; and, if willing, a faculty for the future college is formed then and there. This, however, is but the skeleton of the structure. It is now necessary to incorporate the institution which is yet in embryo, so the original projectors constitute themselves incorporators, and, in consideration of the payment of the usual fee, a pro forma decree of incorporation is easily obtained.

This much having been done, the real work begins. The chairs of the newly-fledged institution are apportioned out to each one, there being attached the title of professor, and there you are. These self-constituted professors are now ready to make doctors and elect a board of trustees, who are laid under the burden of attending to the *modus vivendi* and obtaining the *nerous rerum*. So much having been accomplished, the original projector sees to it that he is elected dean, and then the real object of the whole scheme begins to take shape. In order to obtain students, something besides personal influence is necessary. An announcement must be issued, and this it is that is broadcast in its distribution to the members of the medical profession and to possible prospective students, among which latter class patients and friends may be included. It is strictly legitimate and ethical advertising, and it lets the public know in what specialty each member of the faculty is working. No exceptions can be taken to this, but it does seem rather queer that a faculty should be its own creator. It is not seen in any other country. In Europe, a long apprenticeship must first be served, and then advancement takes place by gradual steps, if the applicant for the next higher position proves himself worthy. He gains a full professorship when the incumbent dies, for he never resigns.

There can be no doubt whatever that many professors in this country are not educated medically or otherwise up to that

standard which such a position would naturally demand. On the other hand, how could it be otherwise when there is such an excess of medical colleges. Every cross-roads town almost has one or two medical colleges, and the physicians in that burg are all professors or connected in some capacity with a medical college, the only prominent practitioners of medicine being those who have no connection or affiliation with a medical school. Of course, there are some of these schools which have in their faculties one or two really capable men, but their right is not sufficient to enable them to carry such an institution. What we really need is less medical colleges and better ones, under governmental control, with faculties composed of really capable men receiving a salary which will enable them to be independent of the necessity of being forced to earn a livelihood. Then there would be professors of whom we could be proud and who would shed lustre upon the profession of this country, and in addition make it a source of pride to be called an American medical professor. We are approaching the period when this much-desired consummation will be reached. The first wave has already manifested itself in the evidence furnished by the consolidation of colleges in different parts of the country. The weakness of some institutions will lead to their absorption by stronger ones, and this gradual process of weeding out will relegate many professors to the primal oblivion from which they were lifted, and enable more capable ones to fill the places which are gradually becoming less sought for by those who are really capable.

We do not expect a medical millenium for many a year yet to come, but we know that a period of betterment is on its way, that we hope for many and marked improvements in the near future. May these be most noticeable in the rank and file of the American Medical Professor.

THE AMERICAN MEDICAL ASSOCIATION.

The approaching meeting of the American Medical Association at Saratoga Springs, June 10-13, promises to be a most successful one. The preliminary programs of the various sections already show a large number of papers which, to judge from their titles and the names of their authors, will make an

epoch in the history of the association. In fact, the principal cities of the United States will send their quota, and there is no reason apparent why the meeting should not be a declared success. We are indeed surprised to find but two St. Louis names in this list. As a beginning for a World's Fair city it is indeed a very small showing. It is to be hoped that the final program will show better for the Queen City of the Mississippi Valley. However, that of which we desire to speak more particularly is concerning transportation to the meeting place. It has been decided to make the rate one and one-third for the round trip to Saratoga, under the usual convention regulations.

We copy some of the interesting points in connection with the meeting from the *Journal of the American Association*, as this is official, and therefore to be relied upon. Below we give a list of the important hotels at Saratoga Springs, with prices. Besides those mentioned there are a number of boarding houses whose rates vary from \$1 to \$2 per day. The chairman of the committee on hotels is Dr. J. R. Swanick, Saratoga Springs, who will be glad to engage rooms in advance for those who will write to him.

Hotels.	Accommodations.	Single rooms.	Single rooms with bath.	Double rooms.	Double rooms with bath.
Grand Union.....	1500	\$4 00 up	\$6 00 up	\$8 00 up	\$10 00 up
United States.....	1200	4 00-5 00	6 00-7 00	8 00-10 00	10 00-12 00
American-Adelphi	300	3 00-4 00	4 00-5 00	6 00-8 00	8 00-10 00
Kensington.....	500	3 00-4 00		6 00-7 00	8 00-10 00
Columbian Hotel.....	250	3 00		5 00	
Worden Hotel.....	250	3 00		6 00	
Everett House.....	200	2 50		4 00	
Huestis House.....	200	2 00		4 00-5 00	
The Commercial.....	150	2 50	3 00	4 00	5 00
Hotel Continental.....	150	2 00		3 00	
Franklin House.....	150	1 50-2 00		3 00	
Vermont House.....	125	2 50		5 00	
The Carlsbad.....	100	2 00	2 50	3 00	4 50
Woodbridge Hall.....	100	2 00		3 00	
Elmwood Hall.....	100	1 35		2 00	
The Waring.....	75	2 00		3 00	
Spencer House.....	75	2 00		3 00	
The Linwood.....	50	2 50		4 00	
The Washburne.....	50	2 00		3 00	
The Moriarta.....	50	3 00	Suite.	6 00	Suite.
The Ashton.....	50	2 50		4 00	
Broadway House.....	50	2 50		4 00	
Pleasant Home.....	40	2 50		4 00	
Washington Hall.....	35	2 00		4 00	
Summer Rest.....	35	2 00-2 50		4 00	

The United States will be headquarters, and it may be stated that all the hotels will be within very accessible distance of the

different halls where sections will hold their meetings and of Convention Hall where the general sessions will be held.

The various places of meeting are as follows:

General Sessions, Convention Hall, Broadway.

Post-office, General Exhibits, Bureau of Registration, Bureau of Information. Hathorn Spring Building, Spring St.

Practice of Medicine. Grand Union Parlors.

Pathologic Exhibits, Congress Hall ballroom. Broadway and Spring St.

Obstetrics and Diseases of Women, Theater Saratoga, Philadelphia St., just east of Broadway.

Surgery and Anatomy, Patterson Spring Building, Philadelphia St., opposite Theater.

Hygiene and Sanitary Science, United States Hotel, Broadway and Division St.

Ophthalmology, Laryngology and Otology, Y. M. C. A. Building, Broadway, opposite Caroline St.

Diseases of Children, Parish House, 17 Washington St.

Stomatology, G. A. R. Hall, Post-office Building, opposite U. S. Hotel.

Nervous and Mental Diseases, Grand Union Hotel.

Cutaneous Medicine and Surgery, American Hotel, Broadway, opposite Philadelphia St.

Materia Medica, Pharmacy and Therapeutics, Grand Union Hotel.

House of Delegates, Supreme Court Room, Town Hall.

Trustees, Judicial Council, United States Hotel.

The Convention Hall, where the general meetings will be held, is in the heart of the village. It is one of the largest and best equipped places for great assemblages in the United States. It has seats for five thousand people, with stage, telegraph facilities, committee rooms and everything else required for the speedy and successful dispatch of business.

The General Exhibit will be displayed in the Hathorn Springs Building, an immense room on the ground floor, within a block of Convention Hall. Under the same roof will be found the Post-office, Telegraph Office and the Bureaus of Information and Registration. The various sections will hold their sessions in hotel parlors and halls, in close proximity to each other.

SCHEDULE OF ENTERTAINMENT.

The entertainments include the following:

Tuesday evening, June 10, Piazza Concert at the United States Hotel. Mr. Thomas Impett, the celebrated Troy tenor, and a quartette will sing a number of selections.

Wednesday morning, Concert in Congress Spring Park.

Wednesday afternoon, carriage drive about village and reception at "Yaddo."

Wednesday evening, Reception and Ball at United States Hotel. The large interior court of the hotel will be brilliantly illuminated with colored lanterns, as though prepared for a garden party.

Thursday morning, June 12, Excursion to Lake George for the ladies.

Thursday evening, President's Reception at the United States Hotel.

We are sure that this should certainly be enough inducement to come to those who do intend to devote their time exclusively to scientific work.

We also learn that among the excursions contemplated from Saratoga Springs following the meeting is a nine days' trip, starting June 13, through Lake George and Lake Champlain, passing historic "Fort Ti," reaching Burlington, the "Queen City" of Vermont, and taking an electric car ride to the U. S. Army Post; then to Montreal, Saturday morning visiting the famous Lachine Rapids and the sights of the city, and Sunday P.M., a sail down the St. Lawrence to Quebec. Monday evening the party will go by special train to the White Mountains and stop there until Wednesday, when the party will journey past many points of interest to Poland Springs, stopping there on invitation of the proprietors; thence to Boston, where a reception will be tendered and a carriage drive about the city given. Further information in regard to this trip can be obtained by addressing Dr. Edward R. Campbell, Bellows Falls, Vt.

All this certainly forms a series of entertainments which should induce every county in the country to send a medical delegation. It is an opportunity to the doctor to take his annual vacation amid pleasant scenes, and with pleasant companions and friends. We have no doubt but that an immense delegation will invade Saratoga next June, and we can assure our readers that all the inhabitants of that village are prepared to give them a royal welcome.

SOCIETY PROCEEDINGS.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting March 4, 1902.
JOSEPH COLLINS, M.D., President.

A CASE OF MYOTONIA.

Dr. J. Ramsay Hunt presented a man, twenty-eight years old, who had come to the clinic with a history of having a peculiar stiffness of the hands and of the muscles of the jaws in the morning. On awakening it was found impossible to open the eyelids to their full extent for a minute or more. This myotonia was aggravated by cold or prolonged rest. There was a consolidation at the apex of one lung in this patient. Strong, stable galvanic applications produced no wave-like contractions such as are sometimes observed in myotonia. The hands were weak; the knee jerks were difficult to elicit except on reinforcement. The muscles were small and showed no evidence of hypertrophy. The legs were not involved.

LYMPHATIC ANGIOMATA.

Dr. Joseph Fraenkel presented a man who had symmetrical tumefactions in the preauricular space, over the upper part of the sternum, between the upper borders of the shoulders and also in the abdominal wall. The man gave a history of chronic alcoholism. The speaker said that according to the modern conception this disorder was a localized disease of the lymphatic glands and vessels—in other words, a lymphatic angioma. Since the admission of this patient to the Montefiore Hospital he had developed a rather acute tuberculosis. According to the literature, thyroid medication in such cases caused a diminution of the body weight, although the tumors, despite their close resemblance to lipomata, remained unchanged.

MULTIPLE NEUROFIBROMATA.

Dr. Fraenkel presented specimens from a patient who had long been in the Montefiore Hospital. The patient was a woman, who was thirty-one at the time of her death. Her family history was excellent, and she had been well up to eleven years

ago. At that time she had given birth to a still-born child, and claimed that shortly afterward she had developed a tumor on the right side of the abdominal wall. Soon after this the left lower extremity became contracted. On admission to the hospital there were contractures of both lower and upper extremities, and the diagnosis was hysterical contractures. In the later stages she presented the picture of hysterical chorea. There were very irregularly distributed atrophies and changes in the reaction of the muscles of the upper extremity, and in some of the muscles of the lower extremities. There was also total paraplegia. There were no trophic disturbances. At the autopsy a number of tumors, neurofibromata, were found. One of these almost totally compressed the cord. The brachial plexus was the seat of numerous neurofibromata.

Dr. Joseph Collins said that cases of multiple neurofibromata must be extremely rare, as he had just seen his first case of the kind. This patient was a smoker who came to the clinic stating that he had suddenly begun to experience pain in the right arm and shoulder, and that pain and inability were increasing. Twelve years ago he had had a somewhat similar condition, but had recovered from it, and the history indicated that there had been several other similar but slighter attacks. Examination showed that the musculospiral, the circumflex and the suprascapular nerves were the ones particularly affected. They were tender on both superficial and deep pressure. Investigation showed no less than 70 tumors in different parts of the body, varying in size from one-fourth to one-half an inch. Two of these tumors could be felt in the inferior border of the axillary space where the external division of the brachial plexus was situated. It was, therefore, fair to infer that these tumors were similar to those found in the other parts of the body, and by an implication of that trunk had given rise to the pressure neuritis from which the patient was suffering.

Dr. Harlow Brooks said that at the January meeting of the New York Pathological Society a specimen of neurofibroma had been shown. Only the sciatic nerves were involved, and the enlargements were almost symmetrical. There was apparently a complete obliteration of the nerve fibres.

THE HISTRIONIC ELEMENT OF MENTAL DISEASE.

Dr. Theodore H. Kellogg presented a paper on this subject,

which, he said, was not only an interesting topic but of real diagnostic importance. Shakespeare had recognized this by introducing several insane persons into his plays. The acting was involuntary in some and intentional in other insane persons. The maniacal patient was sometimes driven by vivid hallucinations to emotional acting. There was nothing more spectacular than a powerful man wrought up by hallucinations and delusions. The most persistent and intentional forms were seen in paranoiacs. The theatrical stage afforded nothing more striking than the lunatic leading a crowd of sane persons from their sober avocations into all sorts of vagaries of religious belief. It was the rule that whatever had been attained by laborious effort was generally abandoned in mental disease, and hence the professional actor showed no special tendency to acting when insane. A number of cases of erotomania had come under his observation which had been characterized by most persistent acting. Jealousy was one of the most powerful passions, and when it had insane intensity it led to the most tragic performances. Mental patients were prone to mimic those around them most persistently and cleverly. In most large hospitals for the insane were to be found those acting as buffoons for the edification of themselves and others. Malingering rôles were sometimes acted for weeks and months, and sometimes the patient even burlesqued the mental disease. They sometimes dissembled their real symptoms and denied the existence of delusions in order to secure discharge from asylums. It was well understood that prolonged feigning might lead to insanity, but it was not so generally known that unless the histrionic element were repressed it would tend to interfere with the cure of the mental disease. The recognition of the histrionic element as an integral part of mental disease shed light on some obscure phases of mental pathology, and had practical bearings in the prognosis and treatment of mental maladies.

Dr. Lyon said that the author of this paper had enjoyed unusual opportunities for observing insanity in all its forms, and the instances cited were undoubtedly the exceptions rather than the rule. There were not many who act a consistent rôle for any length of time. He had known some of these patients who were trying to act the rôle of a certain personage halt for a moment when confronted with the statement that this was not the

true impersonation. He agreed with the reader of the paper that it was well to discourage, without actively combating these delusions.

Dr. Defendorf said that the paper was exceedingly interesting from a descriptive standpoint. He could not agree with the statement that the histrionic element was of great prognostic and diagnostic value. Such acting was said to be the expression of morbid impulses, and that they occurred in connection with grandiose ideas in paranoia, yet in the one class the prognosis was good, and in the other it was very unfavorable.

Dr. Ralph W. Parsons described a number of striking and amusing cases illustrating the histrionic element. He said that in these cases the imagination was the predominant element, and that there was often a reversion to the mental state found in children or in primitive races.

Dr. Noble, of Middletown, Conn., said that the patients he had met with who had displayed the histrionic element, had rarely been consistent; they would not carry out the entire character impersonated as an actor on the stage would do. Whether this was because of deficient knowledge of the character impersonated or because of a deficiency in histrionic ability, he could not say. He had always looked upon this element as unfavorable, probably because it was so largely seen in paranoiacs.

CONDITIONS FOR PSYCHIATRIC RESEARCH.

Dr. Adolf Meyer read this paper. He spoke of the founding of the New York Pathological Institute of New York State, and of the causes which had led to the failure of this work. He said that he had hesitated long before accepting the present unenviable position and the task of reorganizing this institute, and making it more generally useful. He had been told that the hospitals for the insane would not receive what they most needed if the institute began its work with research. The scientific spirit in the hospitals should be stimulated and fostered in every way possible, and hence clinical and pathological work should be done as far as possible in these hospitals under the supervision of the institute. The central institute should offer to the hospitals advanced instruction in clinical psychiatry. The central institute should not, however, abandon original research. The safest starting point was undoubtedly actual ex-

perience. The pathologist of the hospital for the insane had found himself hedged in by narrow routine, and the hospital staff so engrossed with routine work as to have no time or inclination for original scientific investigation. The speaker then went on to point out many of the inaccuracies of symptomatology and the shortcomings of histology as applied to psychiatry. In his opinion, the staffs of the hospitals for the insane were entirely too small to do their work well. Psychiatry knew little as yet of diseases, as that term was used in connection with other parts of the body—in other words, it knew little of pathological entities. In no other field of medicine were absolutely accurate records so useful as in psychiatry, yet where were such records to be found? The effort of the present day should be to improve the records and do away with the prevalent impressionist method. Dr. Dent, of Manhattan Hospital, has agreed to give the necessary clinical material for a start, and a chemical laboratory and a histological laboratory for study in clinical psychiatry would be established, and, in time, a psychological department would be added. All those in charge must be physicians especially interested in psychiatry. The assistant physicians in all the hospitals should be encouraged to do good work according to the recognized modern scientific methods. The new movement must be a natural outgrowth of the present conditions.

Dr. Lyon thought the workers in the hospitals for the insane would very generally welcome such help as had been offered in outline of this paper. He had long felt that clinical and laboratory work should be practically united.

Dr. Smith Ely Jelliffe congratulated the reader of the paper and pledged his hearty co-operation. He said that he knew the stress of work laid upon the hospital interne and sympathized with him, and for this reason he thought the suggestions contained in this paper were most judicious.

Stated Meeting, February 4, 1902.

JOSEPH COLLINS, M. D., President.

A CASE OF MONOCULAR EXOPHTHALMOS.

Dr. J. Arthur Booth presented this case, and raised the question as to whether one was justified in making the diagnosis of

Graves' disease. The patient was forty-seven years of age, and had never had any serious illness previously. She had been well up to last fall, when she noticed a blurring of the vision, and a change in the appearance of the eye. There was no history of fright. The patient stated that three months ago the left eye was struck by the foot of an infant. Examination showed no enlargement of the thyroid; pulse 96; no decided tremor. Dr. David Webster found both fundi normal, and the action of the eye muscles normal. There was retraction of the upper eyelid of the right eye, with marked exophthalmos.

Dr. B. Sachs said that he had at present under treatment a married woman, about twenty-three years of age, who after pregnancy had developed unilateral exophthalmos. The case was identical with the present one, except that the exophthalmos was on the other side. There was no goitre, and on coming under treatment the pulse was 132. Under treatment consisting chiefly of rest in bed and the use of mild tonics, the pulse came down to 90, and was no longer intermittent, and the exophthalmus was slightly diminished. In addition, this patient presented the peculiar gastrointestinal symptoms of Graves' disease, and, in the absence of any other serious disease, he could only make the diagnosis of unilateral Graves' disease.

Dr. W. M. Leszynsky said that he had seen two similar cases. One occurred in a man who had exophthalmos, retraction of the upper eyelid and some tachycardia. In the course of six months the usual symptoms of Graves' disease developed, and the case ran the usual course. In the other case, there was unilateral exophthalmos and retraction of the upper eyelid with slight goitre, but without tachycardia. The case followed the usual course of Graves' disease. It did not seem to him unusual in the early stage of Graves' disease to find the exophthalmos only on one side.

Dr. J. Arthur Booth thought it was rather unusual for the eye to be alone affected in the beginning; more commonly there was some tachycardia as the first symptom.

A CASE OF CENTRAL HEMATOMYELIA.

Dr. I. Abrahamson presented a man of forty years, a Russian tailor. The man had fallen and struck the back of his head on the floor some weeks previously. A week and a half

later he noticed numbness of the little finger of one hand. Twenty-four hours after this the entire upper extremity was numb, and one day after this both lower extremities were numb and weak. On the fourth day of this trouble there was complete inability to move. The special senses were normal. There was extensive muscle wasting while in bed, although there was no fever. He recovered in a very short time. Examination showed the pupils equal and the ocular movements normal. There was a tremor of the facial musculature on one side; the tongue was drawn to the right; the reflexes of the upper extremity were exaggerated, especially the triceps. There was a marked flabbiness of the musculature and wasting, especially around the shoulders. The knee jerks and Achilles jerks were exaggerated. There was no spasticity. The volume of the left lower extremity was much greater than that of the right. There was no limitation of the visual field, and no Romberg symptom. On rising from the chair it was necessary for him to assist himself with his hands.

Dr. Joseph Collins said that he had had this case under his observation, and the only diagnosis seemed to him to be a central hematomyelia, with the cleavage in an upward direction. The comparatively mild traumatism, the rapid onset of the symptoms, the rapidity of the recovery, and the widespread involvement all seemed to him to point to this diagnosis. About two weeks ago the abnormal condition had been much more marked than now. There had been great difficulty in rising from a chair, and he would sit down very suddenly. There were no objective sensory disturbances.

A CASE OF CEREBRAL ENDARTERITIS, PROBABLY SYPHILITIC.

Dr. W. M. Leszynsky presented a Hungarian woman, twenty-two years of age. There was no history of rheumatism, trauma or syphilis. Several times recently there had been transient paresis of the left arm and leg, and there had been some regurgitation of food. Shortly before coming under his observation there was severe headache and vertigo associated with fever, and followed by marked ptosis of the left eye. Examination in August showed partial ptosis of the left eye with vertical diplopia. Only the left superior rectus muscle was affected. The vision in both eyes was normal. The fifth nerve

was normal objectively. Innervation of the facial muscles was feeble on both sides, and there was slight facial paralysis on the right side. She was treated with mercury and iodide, together with galvanism and the use of strychnia internally. In ten weeks the ptosis and diplopia had disappeared. The ptosis then attacked the right eye, and in three days became complete. The levator was the only muscle affected. The iodide of potassium was resumed, and in four weeks this muscle had almost completely recovered. On January 12, or one month later, the left eye was again attacked with ptosis. There was slight vertigo, but no diplopia. At times, it was necessary to make several efforts at swallowing before succeeding. She still complained of left-sided headache, and after talking for some time she found it almost impossible to speak, but the ability to do so would return after a few minutes' rest. She was now receiving 28 grains of iodide three times a day. There was no history or evidence of syphilitic infection. The case seemed to be a peculiar instance of cerebral endarteritis, probably syphilitic. The iodide had very little effect in controlling the pain.

CEREBRO-SPINAL SYPHILIS.

Dr. Leszynsky also presented a man, thirty-three years of age, a driver by occupation. He had been first seen by the speaker in November, 1899, and up to three months before that had been well. He then experienced numbness in the left side of the face, with slight twitching of the facial muscles. Two months later there was diminished vision in the right eye, with occasional diplopia. Four months after the numbness began, the first three molar teeth in the right upper jaw became so loose that they were removed with the fingers. He was the father of six healthy children. According to the history, he had many years ago contracted a chancre, but no marked secondary symptoms had appeared. The pupils were found to be markedly contracted and rigid. There was no anesthesia of the conjunctiva, and there was good vision in each eye. Both fundi were normal. The innervation of the facial muscles was normal, and there was no tremor. Mercurial ointment and iodide of potassium were used at first, and later strychnia. Three months later he complained of vertigo and diplopia, and was found to have complete paralysis of ac-

commodation. At the end of two months he was much improved, and disappeared from observation. After an absence of sixteen months he returned in August, 1901, and stated that fifteen months previously he had fallen through a hatchway, but had only been severely shaken up. In July, 1901, he was thrown to the ground by a man jumping upon his head from a height. On examination in August, there was found to be complete paralysis of all branches of the third nerve; both pupils were rigid, and he was blind in the right eye. There was advanced atrophy of both optic nerves. He had been taking iodide and strychnia in injections. In this case of cerebro-spinal syphilis the optic atrophy was apparently of a primary degenerative type. Strychnine was administered in gradually increasing doses up to the toxic effect, but it had no beneficial action, and this had been the speaker's uniform experience with it in these cases. The case was of forensic interest because the man was trying to substantiate a claim that the blindness had resulted from the traumatism to the head.

Dr. B. Sachs said that the diagnosis could only lie between cerebro-spinal syphilis and tabes, pure and simple. In the former, if the optic nerves were involved, there would be a distinct optic neuritis. The important question was as to whether there had been a primary optic degeneration. According to the history, the case was probably one of cerebro-spinal syphilis. The first case also seemed to be one of cerebral syphilis, but he doubted if it were an example of syphilitic cerebral endarteritis; it was more than probable the thickening in patches of the meninges of the nerves as they emerge from the base of the brain.

Dr. Leszynsky said that on account of the transient character of the symptoms it seemed to him that they were, in all probability, due to some interference with the circulation. The temporary attacks of aphasia and difficulty in swallowing, and the trouble with the third nerve pointed to some interference with the nutrition of the nuclei. If this interference were with the nerve trunk itself, it would be unlikely for the localized meningitis to select certain fibres of the nerve and interfere with the nuclear distribution. In the second case, both Achilles reflexes were present; there were no sensory symptoms—in short, nothing to indicate the presence of tabes.

MULTIPLE SCLEROSIS (?).

Dr. I. Abrahamson presented two cases suggesting multiple sclerosis, though presenting other symptoms. The patients were seventeen and sixteen years old respectively, a sister and brother. Both parents were well. The children were born without instruments, but early showed an unsteady gait, slowness of speech and nystagmus. Both children exhibited pronounced stigmata of degeneration. On examination, the gait was unsteady, the pupils were equal, the ocular movements slow and jerky, and nystagmus was present in all positions. At times the Babinsky was obtainable. There were no sensory disturbances. The speech was slow and monotonous, and there were marked mental defects of the nature of a mild dementia. The fact that these two children, together with another, all belonged to the same family, was a point against the diagnosis of multiple sclerosis.

Dr. C. L. Dana said that if these cases were not to be called multiple sclerosis, he did not think it would be possible to make that diagnosis from the clinical picture.

Dr. Joseph Fraenkel said that he had seen the boy when he was brought to the Montefiore Hospital, and had made the diagnosis of multiple sclerosis; but after having watched the case further and obtained a complete history, he had been in doubt about the correctness of this diagnosis. At the time of admission the spastic symptoms were very much more marked than at present.

Dr. Sachs said that family forms of multiple sclerosis had been described, yet they did not entirely correspond with the typical picture of multiple sclerosis. They resembled somewhat the Marie type, but he would not make that diagnosis. A progressive disease of this sort occurring in a family with dementia had been reported by one of the northern European writers.

Dr. Collins said that he would hesitate long before diagnosing these cases as multiple sclerosis, for the reason that this was opposed to our conception of multiple sclerosis as a pathological entity. It was now looked upon as a disease of early adult life of the nature of a late infection or organic neurosis. In the cases just presented there was, in all probability, a teratological condition. To account for the symptoms

there would have to be a large sclerotic area of the poles of the anterior hemispheres, while the posterior and middle parts would have to be almost free, as the special senses were well developed.

Dr. Dana said that as dementia paralytica could be associated with multiple sclerosis in adult life, it was possible that the defective mental development might exist in childhood.

Dr. J. Ramsay Hunt reported the case of a widow, fifty-three years of age, who had been admitted to the Montefiore Hospital in October, 1886. At this time her disease had lasted for several years. Speech was slow and stammering. She had a spastico-ataxic gait, the Romberg symptom, slight weakness of upper extremities with ataxia, considerable motor weakness of the lower extremities. The knee jerks and ankle jerks were present and lively on both sides, and the pupils were equal and active on both sides. There were no sensory disturbances, and no rectal or bladder symptoms. The ophthalmoscope showed an atrophy. In January, 1899, it was found that she could neither walk nor stand; speech was stammering and syllabic; there was marked intention tremor in the upper extremities; nystagmus was present in all directions except downward. The motor power was defective in the upper extremities, and there was resistance to passive movements, especially in the legs. The right knee jerk and left Achilles jerk were absent. The plantar reflex was present on the right side, and absent on the left. On post-mortem examination the anterior border of the calvarium showed a nodular eburnation. The fissures were widened. The stained tissues showed an increase of gliar cells, and leucocytes in the gray matter. The cells showed distinct atrophic changes, and were somewhat sclerosed. The meninges were thickened and infiltrated with round cells. In the cord were found disseminated plaques of sclerosis. Nowhere in the cord were any distinct signs of inflammation. The specimens from this case were exhibited under the microscope.

DISCUSSION ON THE ABSOLUTE AND RELATIVE FREQUENCY OF MULTIPLE SCLEROSIS.

Dr. C. L. Dana said that among 3,000 private cases of which he had histories, there were only 10 cases of multiple sclerosis. Out of about 600 cases at the out-door clinic during the past

year, there were only two cases diagnosticated as multiple sclerosis, and even these were questionable. In Bellevue Hospital itself 12,000 patients were received annually, and one of his assistants was constantly on the watch for cases of nervous disease, yet he had not found more than one or two new cases of multiple sclerosis each year. It was evident, then, that multiple sclerosis was very rare in private practice, and decidedly more rare than in the clinics of Europe. It was possible that we made mistakes in diagnosis in some cases of so-called acute or subacute transverse myelitis, coming under observation as chronic transverse myelitis. Some of these cases would probably ultimately prove to be examples of multiple sclerosis, yet, of those he had been able to follow for many years, none had terminated in this way. Other cases of multiple sclerosis might have been recorded as ataxic paraplegia, though he did not make this diagnosis himself. He could call to mind four of these cases, in which there was really a combined sclerosis due to some secondary anemia or toxemia. Then there were cases of sporadic forms of retrobulbar neuritis, which perhaps develop later into multiple sclerosis. From his experience he was compelled to believe that multiple sclerosis must be more rare here than abroad, possibly owing to the better surroundings of the masses.

Dr. Graeme M. Hammond said that he had spent considerable time in examining the records of both private and dispensary practice. He had examined 3,000 private records, and 7,000 records from the clinic, extending over the past ten years. In the former there were 729, or about 25 per cent., with organic diseases. Of these cases 15, or about 2 per cent. had multiple sclerosis. In the clinic cases there were 2,400 organic diseases, and of these 32 had multiple sclerosis, or 1.33 per cent. He could not agree that there was a greater percentage of multiple sclerosis cases in dispensary practice. Of the combined private and dispensary cases 47 had multiple sclerosis, or 1.5 per cent.

Dr. Goodhart reported, for Dr. M. Allen Starr, that he had examined 10,056 cases in the clinic, and had found 27 recorded as multiple sclerosis. In 6 of these the diagnosis was doubtful—in other words, there was one undoubted case in 475. Of the 4,809 males there was one case of undoubted multiple scle-

rosis in 437, while of the 4,898 females there was one such case in 700. With regard to the age, the records showed that among the males there was only one occurring after the age of sixty, while among the females all developed the disease under thirty-one years of age, and the earliest case occurred at the age of sixteen months.

Dr. Sachs said that he had examined the records of 2,000 cases in private practice, and had found 13 undoubted cases of multiple sclerosis, and 2 questionable ones. There were 41 of tabes dorsalis, 69 of cerebro-spinal syphilis, 38 of general paresis, 14 of intracranial tumors, 15 of paralysis agitans, 37 of apoplexy, and 15 of infantile cerebral palsy. He thought we had a faulty impression of the relative frequency of the disease in Europe. According to one of the latest European works, the author states that he had seen 5,500 private cases of nervous disease, and in this number had met with 38 cases of multiple sclerosis. This would give 1 in 144, whereas, Dr. Sachs said his own experience gave 1 in 150. It was most important in considering such figures, to know from what classes the material had been drawn. Many cases diagnosticated in this country for the time being as chronic myelitis, were diagnosticated in Europe as incipient cases of multiple sclerosis before the characteristic symptoms had developed. With regard to the differential diagnosis, the speaker said it was important to differentiate multiple sclerosis from multiple cerebro-spinal syphilis, and also from general paresis, particularly in the later stages. Multiple sclerosis usually began earlier than general paresis, and the latter was a much more progressive disorder, and the dementia was much more marked. In several cases of cerebral infantile palsy, he had been in doubt as to whether there was multiple sclerosis present. There were some cases which had begun as multiple sclerosis, and had gone over distinctly into paralysis agitans. He had seen two or three cases in which there was considerable doubt as to whether the correct diagnosis was neurasthenia or multiple sclerosis.

Dr. Leszynsky said that he had no statistics to present, but he would agree with the others that multiple sclerosis is comparatively rare in this country.

Dr. B. Onuf said that he had made the diagnosis of multiple

sclerosis in a much larger proportion of cases than the others, for, he had seen in hospital between 500 and 600 cases, and had made the positive diagnosis of multiple sclerosis in 8 cases.

Dr. Edward D. Fisher sent a communication, saying that in his clinic at the University during six years, he had seen out of a total of 2,451 cases of nervous disease, 8 cases of multiple sclerosis.

Dr. Collins said that in 1901, 1,470 cases of nervous disease had been seen at his clinic, and this number furnished 5 cases of multiple sclerosis. In 1900, 1,368 cases were seen, of which 5 were multiple sclerosis. In 1899 there were 1,400 cases, and 5 of multiple sclerosis; in 1898 there were 1,270 cases, with 3 of multiple sclerosis. Thus, in the four years the clinic had been under his personal direction, there had been approximately 6,000 cases of nervous disease, with 19 cases of multiple sclerosis. During this period there had been 37 cases of locomotor ataxia, 29 of paralysis agitans. From 1890 to 1897 there were 28 cases of multiple sclerosis in a total of about 4,000 cases of nervous disease. He had notes of 8 cases of multiple sclerosis seen in the City Hospital, and not included in the previous figures. This hospital devoted about 75 beds to nervous disease, and in this service he had met with about one case of multiple sclerosis a year. In his private practice he had made the diagnosis of multiple sclerosis four times only. According to his own experience, therefore, multiple sclerosis is a very rare organic disease of the nervous system. He had found paralysis agitans one and a half times more frequent, and tabes dorsalis about twice as frequent as multiple sclerosis.

Dr. J. Fraenkel said that the statistics of the Montefiore Hospital conformed very closely to those already presented. Out of 2,100 patients at this institution during the past ten years, about half of them being cases of nervous disease, there had been only 18 cases of multiple sclerosis. He had been very conservative in making the diagnosis of multiple sclerosis in these cases. Out of about 160 cases of nervous disease at present under treatment there, about 35 were cases of tabes, and 9 cases of multiple sclerosis.

BOOK REVIEWS.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by HENRY W. CATTELL, A.M., M.D., with the Collaboration of JOHN B. MURPHY, M.D., ALEXANDER B. BLACKADER, M.D., H. C. WOOD, M.D., T. M. ROTCH, M.D., E. LANDOLT, M.D., THOMAS G. MORTON, M.D., JAMES J. WALSH, M.D., J. W. BALLANTYNE, M.D., and JOHN HAROLD, M.D. With Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. Vol. I., Twelfth Series. 1902. 8vo, pp. 306. Illustrated. [Philadelphia: J. B. Lippincott Company. 1902. Price per volume: cloth, \$2.00; half leather, \$2.50. Each Series consists of four volumes.

The International Clinics is always a welcome visitor to our desk, and we greet it with renewed pleasure as we see each new issue. As we have had occasion to remark on various occasions, whilst an old friend, it is ever new and replete with that which is fresh and interesting. The present volume is far from being an exception to this opinion, which we have so freely expressed. In fact, it seems to be imbued with fresh vigor, and full of new energy. We cannot but feel surprised at each new evidence of this increased vigor, and feel sure that it will long continue to be the leading publication of this character in the United States. With its large corps of collaborators from this country and Europe, it is indeed international in scope and character. The latest progress in medicine and surgery here finds a fitting tribute paid to it, and he who can read a volume and fail being benefited by such perusal, is certainly beyond all hope of reclamation. We have followed, and examined as well as read, every volume since the appearance of the first, and we have noted a progressive improvement manifest itself.

The volume before us opens with biographical sketches of eminent living physicians by Dr. Guy Hinsdale. There are two sketches devoted respectively to Drs. S. Weir Mitchell and John A. Wyeth. The former has not only made his mark in medicine, but he enjoys a most enviable name as a litterateur. A very good picture of him examining a patient before a class is given, as well one of himself taken during the Civil War.

Dr. Wyeth is shown to us at his desk in his private office, where he utilizes much of his time. He also is a litterateur, and his contributions to surgery are numerous and practical. These sketches of the men and their habits are very interesting, and short enough not to be tiresome. To those who know the men described, it will prove a pleasure to note all those well-known traits so familiar to them, brought up in a pen picture by a capable writer; and another look at the familiar faces engaged in work is certainly refreshing as well as pleasing.

The corps of contributors to this volume is much above the average, and a rapid survey of its contents will easily demonstrate this. Thus therapeutics is represented by an article on the Use of Opium in Daily Practice, by Arthur V. Meigs. Habitual Constipation receives the attention of J. Boas; and Thyroid Poisoning is considered by J. M. Ward. Following this is a Description of the Methods of Investigating the Action of Drugs, by Horatio C. Wood, Jr. The Climate of New England forms the basis of a paper by Guy Hinsdale; and following this, Prof. H. Hallopeau speaks of the Treatment of Acne. A Few Practical Hints concludes this part. But four articles are included in the department of medicine, but they are excellent and much above the average. Thus we have an article on the Significance of Basophilic Granules in Red Corpuscles, with Special Reference to their Occurrence in Chronic Lead Poisoning, by Charles E. Simon. Alexander McPhedran writes on Dilatation of the Stomach; and Robert H. Babcock reports Cases of Pleurisy, with more or less Permanent Pneumonic Induration; asking, are they tuberculous? Gastro-Intestinal Intoxication is well handled by John C. Hemmeter, in his usually clear style.

As usual, the department of surgery occupies much attention and space. The opening article is on Coxa Vara, by John Marnoch. The next one is a very thorough one on Ectopia Testis, by David M. Greig. Bayard Holmes contributes a clinical lecture, as does William L. Rodman, and both take into consideration several cases, each one of which is in the highest degree interesting. Frederick Griffith also contributes a lecture, the last part of which we would recommend to every surgeon for careful perusal. It is on the fact that care is necessary in handling syphilitics. He who has had an opportunity of observing digital chancres in surgeons and accoucheurs, will readily testify to this. The surgical portion concludes with an article on the Surgical Treatment of Infantile Palsy, by James K. Young and James Kelly. All of these surgical contributions are excellent and much above the average, and interesting and useful in as great a degree to surgeons as to general practitioners.

In the department of obstetrics, A. Boissard, considers in a very interesting manner The Contest Between the Advocates of Symphyseotomy and the Partisans of Cesarean Section. B. Alex. Randall contributes two interesting cases in Diseases of the Ear, Deposit of Chalk in the Tympanic Membrane, and a Case of Mastoid Disease due to Small-pox. The department devoted to Progress of Medicine, including a Review of the Progress of Medicine During the Year 1901, is contributed by Dr. Edward Willard Watson. It is carefully prepared, and embraces some one hundred pages.

The entire volume is well gotten up, and fully illustrated with figures and plates in black and colored. The publishers, as is customary with them, have made a handsome book of it, and one which any physician should be proud of placing on the shelves of his library. We are more impressed with the value of this publication as each successive volume appears. It is a part of a series which, after a certain number of years, constitutes a library in itself of the best contemporaneous medical thought and work. We can unreservedly recommend it to all those in search of good medical literature.

The Operations of Surgery. Intended especially for the use of those recently appointed on a Hospital Staff, and for those preparing for the higher examinations. By W. H. A. JACOBSON, M.Ch. Oxon., F.R.C.S., and F. J. STEWARD, M.S. London, F.R.C.S. Fourth Edition. With Five Hundred and Fifty Illustrations. In Two Volumes. Vol. I. Operations on the Upper Extremity; Operations on the Head and Neck; Operations on the Thorax. 8vo, pp. 727. Vol. II. Operations on the Abdomen; Operations on the Lower Extremity; Operations on the Vertebral Column. 8vo, pp. 776. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, cloth, \$10.00; full sheep, \$12.00 net.]

The author announces that this work is not intended for surgeons, but for those recently appointed on a hospital staff, and with that design in view he has certainly produced a most excellent work which has certainly been appreciated, in view of the fact that the present edition is the fourth. We could hardly expect any but a good work from the Surgeon of Guy's Hospital, where he has had opportunities in surgery such as fall to the lot of few. That he profited by this experience the present work amply testifies, despite the fact that he gives ample credit to others for the aid he has received from this work. The two volumes have been necessitated by the fact that in order to keep up with the rapid advances made in surgery of late years, and in order to incorporate these in his work, much more space was necessarily required. Yet, one reading

the two volumes will find that there has been no useless padding indulged in and that very little could have been omitted with advantage to the book. The general plan and scope of this large manual has been preserved. The author very truthfully remarks, and with much reason withal, that he has retained the original method with which he commenced, as it is of more advantage, since it permits the student to first make thorough dissections in order to familiarize himself with the field which will be considered, and thus enable him to reap the full benefits of what is presented to him. There can be no doubt that he is correct in his own personal experience, and that of a teacher must have made him a most thorough and competent judge of those things which are most necessary and advantageous to members of the hospital staff. So far as our examination of the two volumes before us is concerned, we must say that they are systematic in treatment, thorough in a presentation of the subject, as well as reliable in all recommendations made. The help afforded by Mr. Steward has been of a marked character, and altogether we have here presented to us a guide to the operations of surgery which will bear very rigid criticisms, although it, like similar works, is not destined to last for all time.

To enter into a more detailed examination of each volume would lead to a very long review, so that we cannot give more than a cursory mention of some of its principal points. Before entering into this part of the subject it may not be amiss to mention the fact that the entire work is replete with clinical histories, and, as every one knows, these are of the highest interest and value—interest from the condition of the cases and value from the method of operating, which was followed by success. We note in the first volume that the author enters very fully upon the subject of plastic surgery, a subject which requires both skill and dexterity to properly carry out. The various devices resorted to by surgeons, and which have been used by the masters in this branch of surgery, are very fully considered here and will prove of infinite value to those who study this work. Among the important subjects discussed in this volume are Thiersch's skin-grafting; removal of the breast; and suturing the heart for incised wounds. In the method of skin-grafting mentioned the author prefers removing the grafts from the anterior surface of the thigh, more especially in women. This is certainly a preferable method to that in which the arms are used, as the latter are hairy. The portion on removal of the breast is a very full one and the author discusses the question quite thoroughly. As would be expected, he insists on the removal of all the axillary glands, and a complete cleaning out of all suspected tissues. The subject of suture of the heart is disposed of rather summarily,

but no doubt owing to the fact that the cases of this sort which have been recorded are few in number.

Volume II. opens with the subject of Operations on the Abdomen and this includes no less than 577 pages. It is in this that the author shows himself at his best. In this he includes all those operations which demand a celiotomy, including removal of the uterus and ovaries. In this, as in the other portions of the work, he shows himself a bold operator, and his directions bear testimony to the fact that he is a surgeon who knows what he is about. In this chapter are described the various operations which involve the kidneys as well as bladder and ureters. So far as appendicitis is concerned, the author is radical in his opinion. He thinks that a physician is justified in calling in a competent surgeon to remove the appendix directly he has made the diagnosis. Certainly no exceptions can be taken to such advice, as it is the teaching of a large number of the best experts on the subject now living. In septic peritonitis the author relies on drainage and seems to prefer it to sponging. Of course, as he himself says, this is a great deal a matter of personal preference. In speaking of the various methods pursued for excision of the rectum, the author is not in favor of preliminary colotomy in the Kraske operation. The subject of ruptured perineum is limited to a description of Galabin's description of his operation, which is spoken of as being the simplest and most satisfactory.

Part V. is devoted to operations on the lower extremity. Following this we have a rather short chapter on Operations on the Vertebral Column. In this but a brief consideration is accorded to laminectomy and a few other operations. This forms the concluding chapter of this excellent work on surgery, of which we have given a notice of but a few salient points. A careful perusal of its pages will convince many that it is sufficiently well written and complete enough to form a good guide for a surgeon to read and follow, and that it contains many useful points to men of experience. Those for whom it is intended can find no better guide. Its wealth of illustrations makes everything clear and easily understood, and we can recommend the work, to all those having ambitions to operate, as a safe, complete and reliable guide.

The Principles of Bacteriology. A Practical Manual for Students and Physicians. By A. C. ABBOTT, M.D. Sixth Edition. Enlarged and thoroughly Revised. 12mo, pp. 641. With 111 Illustrations, of which 26 are colored. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, \$2.75 net.

Our advice to any one who desires to have a good, practical

working guide in Bacteriology is to obtain that of Abbott. This book is a standard text-book in many Medical Colleges, being that in the medical department of the University of Pennsylvania. The edition which we have before us is quite an improvement upon former ones, and it certainly must be flattering to the author as well as encouraging to the publishers to know that it is the sixth. It is also an evidence of the interest taken in bacteriology that so many editions should appear in the course of ten years, each one larger than the preceding one, this being necessitated by the additions made on account of progress in discoveries. It is on this account that he who does not desire to become an expert bacteriologist may rest satisfied with what this book furnishes, and he who has aspiration to become one will find it a very good introductory guide to further knowledge of the subject and excellent to prepare him for the higher technique. The constant improvement makes the book more valuable with each edition as well as more complete. The revisions and additions made with each edition have made the present three times the size of the first.

Among the interesting features of the present edition may be mentioned the recent findings which have been made in regard to the causation of cerebro-spinal meningitis and dysentery. The mechanism of infection and immunity also receive some share of attention. In addition to this we find a summary of the present knowledge of the acid resisting bacilli, that are in various ways allied to the bacillus tuberculosis also, and what is of the greatest importance, a description of the more important pathogenic streptothrices. A chapter which has been added is one on dysentery, together with a description of the bacterium which is regarded as its cause. In fact, all the recent advances are summarized in an intelligent manner and one which is certain to prove helpful.

We are very much pleased to see this latest edition of Abbott on Bacteriology and we are certain that it will continue to gain favor at the hands of both students and practitioners.

The Medical Treatment of Gall-Stones. By J. W. KEAY, M.A., M.D. 12mo., pp. 126. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, \$1.25 net.

This little monograph is one which has been needed for quite some little time since the furor of operating has seized upon medical practitioners. The author of this contribution has made an extensive study of the subject, and having been a sufferer himself from this affection we may rely upon the correctness of his observations. Whilst not totally opposed to operative measures, he insists upon the advantages of the medical treatment of gall-stones and supports his views by very

good evidence. For instance, he states that "From the Registrar-General's and other statistics we may thus conclude that no great advantage seems to have accrued from operation in lessening the mortality from gall-stones." Moreover, he states that "in 1879, before the advent of gall-bladder surgery, the number of deaths attributed to gall-stones in England was 172, and there has been a general increase till 1899, when the number of deaths attributed to this cause was 488." The most radical operator is Winiwarter, who looks upon the diagnosis of gall-stones as a sufficient indication for operation. The author of this little monograph will certainly infuse fresh confidence into those who dislike gall-bladder surgery, and there is no doubt that his conservatism will lead to much good. He very clearly sets forth what the disease is, its causes, and the different points in connection with it, concluding with a very clear exposition of the medical treatment. He explains why many methods which have been laughed at are good, and his reasons have a reasonable air and one which forces upon the reader the conviction that they are true.

We would advise those in general practice more particularly to read this book and therefrom gain much useful information, and possibly thus save many patients from unnecessary operations.

The International Text-Book of Surgery. By American and British Authors. Edited by J. COLLINS WARREN, M.D., L.L.D., and A. PEARCE GOULD, M.S., F.R.C.S. In Two Volumes. Vol. I. General and Operative Surgery. Imperial 8vo, pp. 947. With 458 Illustrations in the Text, and nine Full Page Plates in Colors. [Philadelphia: W. B. Saunders & Company. 1900. Sold by Subscription. Price, per volume, cloth, \$5.00 net; sheep or half morocco, \$6.00 net.

The volume before us forms part of the best, the most thorough, as well as the most complete text-book on surgery, which we have been called upon to review for a long time. It is large and compendious, but it is full and complete as well. The corps of collaborators was chosen with more than ordinary care, and much discrimination was exercised in the allotment of subjects by the editors. It is for this reason that we find each one particularly at home on the subject which forms the basis of his contribution. It is not alone this, but the particularly happy mood in which one writes, which forms the excellence of the entire work. This is very noticeable on every page and each contributor offers the undoubted evidence that he had the best in view and then made up his mind to furnish it. It is this which has contributed so much to the intrinsic value of the work, and it is this very value which has made it occupy the very high place which it now occupies among works on surgery.

We have not seen any one who does not accord the fullest meed of praise to this book and a close examination of its contents makes us agree in this opinion.

The book before us is indeed a magistral work, as it should be, when we take into consideration those who form the corps of collaborators, their attainments, combined experience, and general high standing in the surgical world. They have simply made it their object to unite in producing a reliable reference book, untrammelled by any of the traditions of the past and completely up to date so far as our present knowledge of surgical pathology, symptomatology, and diagnosis will permit. The methods which are given are such as are fully approved by those of skill and experience. The first volume is devoted to General and Operative Surgery, and in it we find a wealth of valuable information and teaching such as very few volumes afford. The opening chapter is on Surgical Bacteriology, by the well-known Professor of this branch at Harvard, Dr. Harold C. Ernst. We cannot here enter into a detailed list of the various chapters of this volume, but it may be mentioned that Dr. J. Collins Warren has contributed the chapter on Hyperemia, Inflammation, Local Infection and its Termination; Suppuration, Abscess, Ulcer, Sinus, and Fistula; Erysipelas, Hospital Gangrene, and Retarsis; Operative and Plastic Surgery; and Dislocation of the Hip. Mr. William Watson Cheyne speaks of Diseases of the Bones; Dr. De Forrest Willard on Diseases of the Joints, and Mr. Rushton Parker discourses on Orthopedic Surgery. Fractures are treated of by Dr. Lewis S. Pilcher and James P. Warbasse. Cranial Surgery, by L. McLane Tiffany; and Surgery of the Spine, by Mr. C. H. Golding Bird, form two of the most interesting chapters of the entire work.

It is impossible to give a thorough analytic review in the short space at our command. We can say, however, with truth, that this Text-Book is the most thorough one as well as the most carefully written and reliable one which we have seen in years. It is a credit to the corps of collaborators who have combined their forces to produce it, as well as to the enterprise of the publishers who have spared neither pains nor money to produce such a handsome work. The illustrations and plates are numerous and well executed, especially those in colors. Were we permitted to do so we would like to express our pride in this work, more especially as it is produced in this country. The idea of having a combined corps of British and American writers was a most happy one, and the result, as would naturally be expected, is a brilliant one. The editors have done their work in a thorough and efficient manner and in one for which they deserve the highest compliments. We wish to see the second volume, which is devoted to Special Surgery, as we know it must be as good as the one before us, if not superior to it.

A final word we wish to say to surgeons and to those physicians who may desire to practice surgery is, obtain this work, study it faithfully, and you will be in great part prepared for the onerous and responsible duties of an operating physician. It goes without saying that no surgeon's library can be full without a copy on its shelves.

LITERARY NOTES.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A.M., M.D., with the Collaboration of John B. Murphy, M.D., Alexander Blackader, M.D., H. C. Wood, M.D., T. M. Rotch, M.D., E. Landolt, M.D., Thomas G. Morton, M.D., James J. Walsh, M.D., J. W. Ballantyne, M.D., and John Harold, M.D. With Regular Correspondents in Montreal, London, Paris, Leipzig and Vienna. Vol. I., Twelfth Series. 1902. 8vo, pp. 308. Illustrated. [Philadelphia: J. B. Lippincott Co. 1902. Price per volume: cloth, \$2.00; half-leather, \$2.50. Each series complete in four volumes.

The Operations of Surgery. Intended especially for the Use of Those recently appointed on a Hospital Staff and for Those Preparing for the Higher Examinations. By W. H. A. Jacobson, M.Ch. Oxon., F.R.C.S., and F. J. Steward, M.S. London, F.R.C.S. Fourth Edition. With Five Hundred and Fifty Illustrations. In Two Volumes. Vol. I. Operations on the Upper Extremity; Operations on the Head and Neck; Operations on the Thorax. 8vo, pp. 727. Vol. II. Operations on the Abdomen; Operations on the Lower Extremity; Operations on the Vertebral Column. 8vo, pp. 776. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, cloth, \$10.00; full sheep, \$12.00 net.

The International Text-Book of Surgery. By American and British Authors. Edited by J. Collins Warren, M.D., L.L.D., and A. Pearce Gould, M.S., F.R.C.S. In Two Volumes. Vol. I. General and Operative Surgery. Imperial 8vo., pp. 947.

With 458 Illustrations in the Text, and 9 Full Page Plates in Colors. [Philadelphia: W. B. Saunders & Company. 1900. Sold by Subscription. Price, per volume, cloth, \$5.00 net; sheep or half morocco, \$6.00 net.

The Principles of Bacteriology. A Practical Manual for Students and Physicians. By S. C. Abbott, M.D. Sixth Edition. Enlarged and Thoroughly Revised. 12mo., pp. 641. With 111 Illustrations, of which 26 are colored. [Philadelphia and New York: Lea Brothers & Co. 1902. Price, \$2.75 net.

The Medical Treatment of Gall-Stones, By J. H. Keay, M.A., M.D. 12mo, pp. 126. [Philadelphia: P. Blakiston's Son & Co. 1902. Price, \$1.25 net.

Washington Medical Annals is the title of a bi-monthly octavo of 92 pages, which is the Journal of the Medical Society of the District of Columbia. The subscription price is \$1.00 per year, in advance. The editorial committee is composed of Drs. D. S. Lamb, Walter A. Wells, and V. B. Jackson. This journal is well printed, on good paper and is a real credit to the society which issues it. The contributions are much above the average and are evidence of the high class of papers which are read. The *Annals* will certainly have many subscribers outside of the membership of the society.

The American X-Ray Journal, which has been successfully published and edited by Dr. Heber Roberts, is now in different hands. It is issued by the American X-Ray Publishing Co., Dr. Charles P. Renner, of St. Louis, being the editor. The subscription price is \$3.00 a year in the United States, and it bids fair to continue in the successful career which it has so far enjoyed. We wish it success under its new management and have no fear but that our wish will be realized.

MISCELLANEOUS NOTES.

The Abuse of the Curette.—Dr. V. P. Valentine, Professor of Diseases of Women in the Dallas University, presents in the April issue of the *Texas News* a most able and instructive article under the above caption. Among the many excellent suggestions, he says: "Three very important pus-producing germs are frequently introduced into the genital tract: staphylococcus, streptococcus and gonococcus. Of these, the last being the least virulent and the first the one containing the greatest danger, as long as a simple sapremia exists, that is, as long as a putrefactive action is contained within an envelope and has not yet invaded the living cells, it may be possible to get it without breaking down the breastworks or fortifications that nature has thrown up. It is demonstrable that as soon as nature has any cause to fear an invasion by the foe, she calls out her standing army; the leucocytes begin preparing for war; they close up the fimbriated ends of the tubes, lymph is thrown out, plastic material is formed and nature rallies all her forces to repel the invaders. Now we go in with the curette and tear away these fortifications, and the hordes of bacteria overrun nature with their countless millions, so that we have, instead of a mere intoxication, an invasion of living tissue, and every current of the body, both lymph and blood, running back full of pus-producing micro-organisms with their toxins, and general sepsis is the result."

In these conditions he points out that medication is indicated to destroy the germs and not facilitate the migration by curetting. He also states "Rather than curette in cases of doubt it is infinitely better to employ medication."

Experience and clinical investigation have demonstrated that in cases of inflammation due to the presence of one or more of these pus-producing germs, Micajah's Medicated Uterine Wafers act most satisfactorily.

The pronounced antiseptic and bactericidal properties of this remedy should induce its use in cases where a curette might seem called for, and as a medication it meets all the requirements as suggested in the conditions mentioned by Prof. Valentine where a local application is indicated.

Cactina Pillets as a Heart Tonic.—I am particularly well acquainted with Cactina in the pillet form and can speak highly of it as a cardiac tonic and as a remedy for palpitation in dyspepsia.

Birmingham, Eng.

ALEXANDER BRYCE, M.D., D.P.H.

Chionia an Efficient Hepatic Tonic.—I am not in the habit of writing promiscuously of the virtues of medicines, but when I have used a remedy for many years with uniform success I feel that it is not out of place to give that remedy my commendation. I have been engaged in the practice of medicine here for many years and the diseases which I am called upon to treat are mostly of malarial origin. Under such circumstances, I am required to have a positive and efficient tonic for the hepatic organs. It is very difficult for me to get along without that tried and true remedy for the above conditions, Chionia. I frequently use it alone, and at other times in combination with other indicated remedies. I find it a real tonic for liver troubles and not a mere stimulant, that its administration promotes digestion and supplies the exhausted and run down liver with new energy. Another great advantage is that it has no depressing effects, which ordinary purgatives possess.

Yorcktown, Ark.

L. WILLIAMS, M.D.

Gastralgia; Its Treatment.—Gastralgia is, for therapeutical purposes, divided into two groups by Professor Saundby (*N. Y. Medical Journal*). The first group comprises those cases in which pain occurs independently of eating, and the second group, those cases in which the pain occurs after food is taken. The treatment of the first class consists of change of scene, a sea voyage or mountain air and abundant food at regular intervals. The palliative treatment consists of iron, quinine, arsenic, nux vomica and the mineral acids.

For the second class, the treatment is, rest in bed, milk and lime water in sufficient quantities, say an ounce every hour. A nutrient enema of one egg, beaten up in four ounces of milk, to be given every four hours. The amount of milk should be increased with improvement, and if milk fails, from two to four ounces of lightly cooked minced meat may be substituted.

For the relief of the pain in both cases, Saundby gives morphia or heroin; but in a recent clinical report, Professor Boone, College of Physicians and Surgeons, St. Louis, states that he finds one Antikamnia and Heroin tablet (5 grains Antikamnia; 1-12th gr. Heroin Hydrochloride), given as required, not only relieves the pain, but prevents its recurrence much more satisfactorily than either heroin or morphine alone. In other respects he concurs with Professor Saundby in his method of treatment.

Celerina as a Nerve Sedative.—Written for ST. LOUIS MEDICAL AND SURGICAL JOURNAL, By A. O. Stimpson, M.D., C.M., Thompson, Pa. I have used and prescribed Celerina as a nervous sedative in a sufficient number of cases to test its medical virtues, and by experience I find that it is by far the most effective anodyne compound that is made. It is especially adapted to such cases that will not tolerate opiates, especially in neurasthenia and hysteric convulsions. I have also used it as a calmative in several cases of insomnia, brought on by over indulgence in the use of alcoholic stimulants. I have often combined it with Peacock's Bromides very effectually.

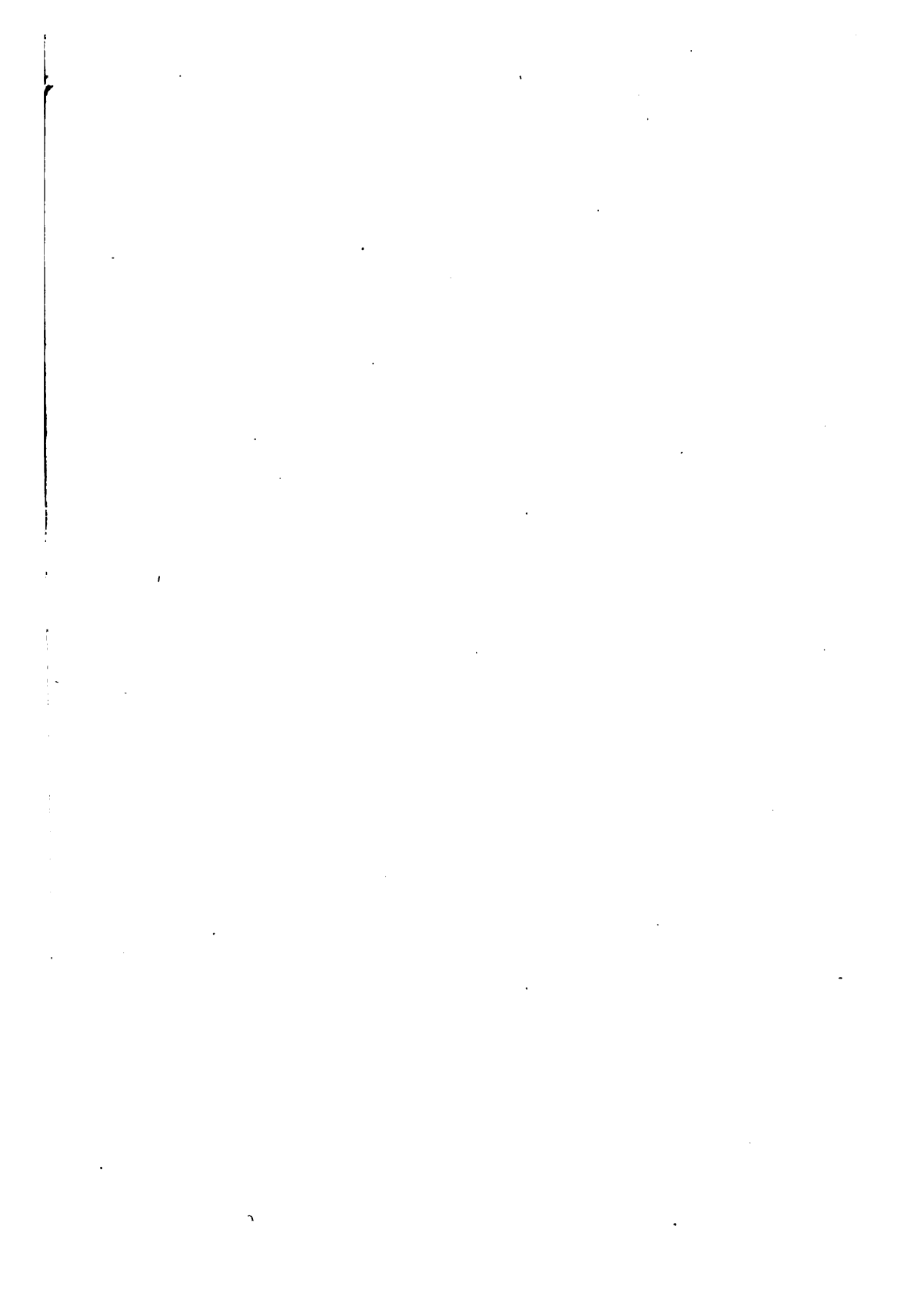
Case 1. Miss A. C., a young lady inheriting an extremely nervous temperament from her mother, was treated by me three months ago for amenorrhea and chlorosis. Preparations of iron were prescribed for her with decided benefit as a constitutional treatment, but she could get no rest at night, only when completely exhausted. Opiates of various kinds proved more of an excitant remedy than calmative. By the frequent and repeated use of bromides of potash, soda and ammonia, she could obtain rest when her stomach would tolerate the remedies, but Celerina proved to be the *sine qua non* in her case, the second dose scarcely ever failing to procure a protracted and refreshing sleep.

Case 2. Mr. F. L., a professional house painter, occasionally afflicted with colica pictonum, immediately relieved of pain and trembling by repeated doses of Celerina given in milk.

Case 3. Mrs. J. G., an aged lady suffering from hemiplegia, attended with annoying formication in palsied limbs, was relieved of these disagreeable symptoms and of insomnia by the use of Celerina. Opiates of any kind failed to have any beneficial effect, and the bromides and preparations of valerian disagreed with her stomach.

Case 4. Mr. S. S., an habitual toper, had had no sleep for three nights in succession, where the stomach was in such a condition that it refused to tolerate alcoholic stimulants in any shape; was speedily relieved by the use of Celerina.

Case 5. A. C., a young child two years old, suffering from hydrocephalus, was greatly benefited by the use of Celerina as a nervous sedative, and is in a fair way to gain unlooked for health.



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